

The OTS Complexity Index

Introduction

Soon after the Office of Tax Simplification (OTS) was established, we were inevitably challenged on ‘what is simplification’. The answer to that question was couched in terms of making the tax system easier to deal with for all concerned – taxpayers, agents and HMRC – with the important connotation that it encompassed both technical (i.e. legislative) simplification and administrative improvements. Indeed, the latter has become the more productive area for our recommendations in many ways.

However, discussion of the definition of simplification in turn raised the question of ‘what is complexity’. Our first small business project spent time ascertaining small businesses’ views on what to them were the main causes of complexity¹. With these results, and the general experience of our first year’s work, we took on a general project on complexity, with the broad aim of answering that question and trying to develop some lessons on how to avoid adding to complexity. This would be part of our legacy to those who come after us.

Our complexity project has a number of strands but the main component is the subject of this paper: the development of a complexity index. We published a number of iterations of the index between 2012 and 2015, each refined to reflect comments from interested parties and our own further researches. Subsequent to the 2015 version we received further helpful comments and met with some groups with a view to producing a further version but pressures of work have made this impossible.

As part of our general review and updating of our work on Complexity, we have revisited our work on the Complexity Index. That has led to the current paper², which seeks to set out the ‘story so far’ for ‘new readers’. For those familiar with the project, we have incorporated points arising from the input we received in 2015/16 and also incorporated aspects of a draft paper on possibly using the Index to ‘score’ the Finance Bill or policy proposals.

As always we welcome feedback and input to our work to ots@ots.gsi.gov.uk.

¹ The report is published, as are all the OTS’s papers on our website at www.gov.uk/government/organisations/office-of-tax-simplification ; as can be seen, the top three causes of complexity were established as (1) volume of change (2) PAYE/NIC boundary issues (3) HMRC administration.

² This paper draws on a paper we prepared for a conference at Prato University in September 2015 and subsequently published as a chapter in ‘Tax Simplification’ by Wolters Kluwer, Volume 53 of their series on International Taxation, edited by Chris Evans, Richard Krever and Peter Mellor.

The purpose of the index

The index was originally designed to give a single ‘star rating’ for each area of tax. This could be used to prioritise future OTS projects - as it would be possible to identify, on a relative basis, which areas of tax are most complex³.

The index had to be able to indicate not only which areas of tax are most complex, but also why. This informs the structure of the index: the requirement for the index to be a diagnostic tool has not changed over time, although other uses of the index are also possible and are discussed below.

The index is based on the OTS’s methodology for assessing the relative complexity of a tax measure. By ‘tax measure’, for these purposes we mean a chunk of legislation (normally primary, but also including secondary legislation where relevant) describing and setting out the rules for a part of the tax code. Following on from further comments (including at a presentation delivered at the International Tax Analysis Conference in January 2014⁴) the index has been modified to measure relative tax complexity more accurately. This has included simplifying the weightings system substantially to remove the need for a potentially confusing aggregation formula, as well as some changes to the indicators used⁵.

The constitution of what is, and isn’t, complex changes with the cultural, socio-economic and technological climate. As the tax system evolves, the assumptions the index is based on could change; as an example, if annual changes were no longer made in a single Finance Bill, it would require a change to the “number of Finance Bills” section of the index⁶. The index will require monitoring to ensure the indicators are kept up to date. Thus work on complexity is not complete, and indeed probably never will be!

We think the index is still best used as a diagnostic tool rather than as a rigorous academic analysis of complexity. The index is valuable in identifying what areas of tax are most complex and why, but the measuring factors it uses are indicators (i.e. symptoms) of complexity rather than the direct causes. It is important to remember that it is a relative, not an absolute, measure of complexity.

³ The index is naturally focussed on the tax system but we have been aware from the outset that the principles and structure used could make it usable on other areas of legislation. With this in mind, the OTS has shown the index to people involved in other areas of the law and informal feedback has been positive. Inevitably some different indicators would have to be developed: for example, avoidance risk would not be relevant in many areas but assessment of guidance probably would be.

⁴ See www.esrc.ac.uk/hmrc/conference

⁵ For example, avoidance risk was changed significantly.

⁶ Those unfamiliar with the UK tax system need to appreciate that the UK has an annual process of change to the tax system. This starts with the annual Budget speech, usually involves consultation on the main measures and culminates in the legislation necessary to effect the changes being included in the annual Finance Bill. The point is that there will always be a Finance Bill in a calendar year (occasionally there are two) which will include almost all of the changes to the primary tax legislation for the year. Changes to secondary legislation – statutory instruments – can be made at any time.

As a diagnostic tool, we think it succeeds, which gives it a good variety of uses and applications. However, it may not as a precise measure of complexity as there may not be 1:1 mapping between complexity and the indicators: there could be complex interactions between indicators. This is compounded by difficulties in establishing an objective definition of complexity.

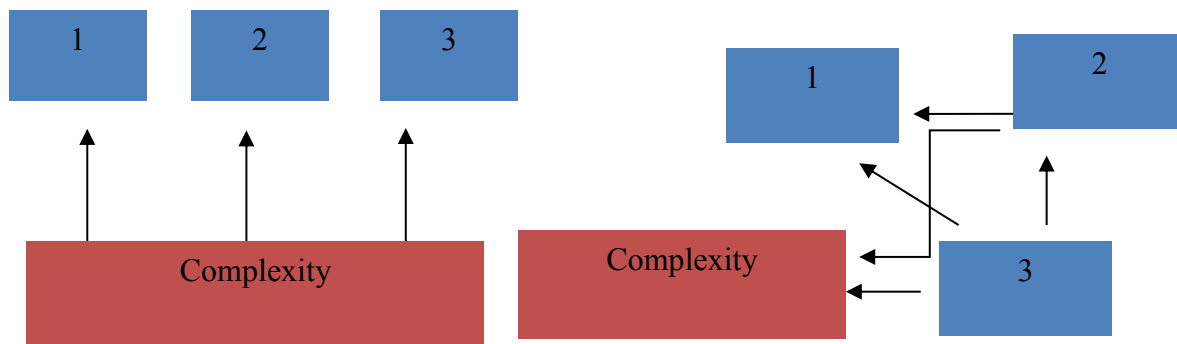


Fig 1. Potential models of complexity. An arrow indicates a sufficient relationship between two concepts e.g. so in diagram 1, if a tax is complex, this results in indicator 1 occurring.

In the diagram above, the leftmost model is the assumption the index is based on, in which complexity causes particular ‘symptoms’ of the tax system, which are measured as indicators. It would be naïve, however, to assume that the indicators have a sufficient or necessary relationship with complexity⁷. In reality the truth could be much more complex; complexity may only give rise to a few (or no) indicators, and there may be other factors which are not measured here, or one of the indicators could be a cause of complexity rather than an effect.

How would the index be used in practice?

We envisage that the index could be used in two ways:

- To prioritise and target efforts to simplify the tax system (i.e. to assess the existing system); and
- To give policy makers a tool to track the relative complexity of their policy changes (i.e. to monitor changes to the system).

The first of these could be valuable for both the OTS and policy professionals in HMRC. As there are a large number of tax measures and sections in the index, a regular review using the index could be done to identify which areas of the tax system are displaying relatively high levels of complexity. The index can then be used to diagnose why the tax system is complex in these areas, and may also indicate what could be done to simplify it.

⁷ A sufficient relationship is one such that $A \rightarrow B$, where if A is true then B is also true. A necessary relationship is one where $A \leftarrow B$, so for A to be true, B must be true.

For instance, a policy maker could look at the index and see that the rules around plant and machinery are particularly complex. They could then look at the indicators and see that this is because of the complex guidance and the large number of pages of legislation. This may then inform a project to review the plant and machinery rules in detail, with a priority of removing obsolete information, and making guidance clearer and more available.

The second way in which the index could be used, would to give policy makers the chance to track changes in relative complexity to their parts of the tax system over time. A new policy can result in changes to the tax system, such as changes in the number of reliefs or pages of legislation. These changes would be included in the index rankings, which would result in a change to the headline figure for the relevant tax measure. This would allow the impact of new policies on complexity to be assessed⁸.

Some complexity in the tax system is inevitable: life, business and tax are all complex. The OTS has previously distinguished between “necessary” and “unnecessary” complexity⁹ as follows.

- **Necessary complexity** is the minimum complexity necessary to achieve the policy aim to a sufficient extent: as noted, there will always be some complexity in a measure, though the key point is that this should be minimised as far as possible.
- **Unnecessary complexity** is anything in addition to necessary complexity, such as duplicate processes, overly complex legislation, over-cautious anti-avoidance legislation or involved forms and procedures around compliance. A measure of unnecessary complexity (discussed below) will also need to be developed alongside this, to ensure that simplification can be feasibly achieved.

The two methods of using the index referred to above could ideally be done in parallel: this could integrate simplification of the tax system into the policy process, and would encourage policy makers to identify simplification improvements to the tax system on a regular basis. In turn, this would help to ensure that simplification plays a part in keeping the tax system modernised and up to date with the current economic environment. Obsolete or burdensome tax measures could be removed on a timelier basis than might otherwise be the case, if policy makers were able to consider actively the complexity of their tax areas.

A definition of complexity for the index

Before attempting to actually measure complexity, it is important that we are clear about complexity. As noted, the original intention of the index was to have a single ‘star rating’, but this seemed to us very simplistic and we wanted to develop a more sensitive tool. In

⁸ Whether such ‘ratings’ would be published is an interesting question. In discussions with French officials about tax complexity, the OTS was told about the French system which experimentally gave a ‘star rating’ of 1 (=simple) to 5 (=complex) to new legislation being introduced to Parliament.

⁹ The OTS is indebted to Professor David Ulph of St Andrews University who introduced us to the idea of necessary and unnecessary complexity during our early work on complexity. The definitions and discussion of the terms are the OTS’s.

particular we wanted to assess the intrinsic complexity in a tax and the impact of that complexity. The index was later developed to include two figures:

- **The underlying complexity:** a measurement of the structural complexity of a tax measure, based on the policy, legislative and administrative complexity
- **The impact of complexity:** a measure of the costs of complexity in the tax system, to both the taxpayer and HMRC

The separate consideration of these two figures is very important- the distinction between complexity and its impact is very clear when an example is considered.

To give an example: the Annual Investment Allowance (AIA) is a tax measure¹⁰ which adds complexity to the tax system, as it provides another option to taxpayers to choose from, increases the amount of legislation, etc. However, it reduces the impact of the complexity of the tax system, as it effectively removes 95% of businesses from the administration complexities of capital allowances.

This points to two important features of the complexity scores, both of which are important but neither of which is surprising:

- there is no established relationship between the underlying complexity and the impact of complexity¹¹; and
- in some cases reducing the impact of complexity upon taxpayers may require additional underlying complexity.

The factors which affect the impact of complexity are the ones which need to be dealt with to produce much of the benefit to taxpayers.

Underlying complexity can be loosely defined as a measure of the complexity of the 'maze' a taxpayer would be required to go through to comply with their tax responsibilities and to understand their tax obligations (and the result of those obligations) with no prior knowledge. Navigability of the tax system is absolutely vital for a taxpayer new to a particular area or the tax system as a whole. Easily knowing the tax outcome of an investment could present an advantage to, for example, multinationals hoping to invest in

¹⁰ The AIA allows a business that invests in plant and machinery – as defined – to claim 100% of the cost of the investment against its taxable profits for the year in which the spending takes place. Thus the business can write off the investment completely for tax purposes, irrespective of the amount of depreciation charged in the accounts. The AIA replaces depreciation, which is not tax deductible. The issue with the AIA was that the amount allowed to be 'expensed' changed regularly with limits being set for a year or two. Annual amounts varied from £25,000 to £500,000 – thus the benefit of simplification was offset by uncertainty over future figures and complexity and confusion over annual changes. The figure has now been set at £200,000 from 1 January 2016, potentially for five years.

¹¹ Though a regression analysis could be done to review whether there is a relationship between the two

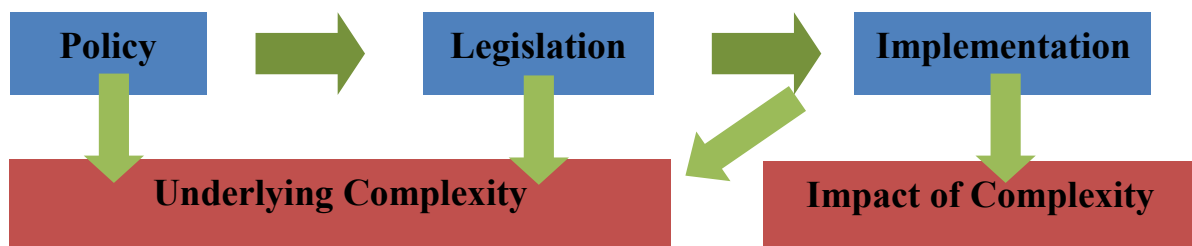
the UK¹². The underlying complexity of the tax system is as important as the impact of complexity, but for very different reasons¹³.

The index cannot in its current state indicate what complexity an individual taxpayer may experience while navigating the tax system, as this is not what it has been designed to do. This data is better found through using alternate tools such as ‘total cost to serve’ to identify what steps an individual customer has to take.

Indicators

As already mentioned, the complexity index is composed of indicators. Indicators are then aggregated to get figures for the underlying complexity and impact of complexity.

Before explaining the composition of the index, it is important to consider how tax complexity arises within the policy implementation process. Below is a diagram which shows the different stages at which complexity can arise in the tax system: the policy, legislative and implementation stages.



The process diagram above indicates that complexity in one part of the system will often (but not always) lead to complexity in subsequent parts¹⁴, as a complex policy invariably requires complex legislation, which may need to be interpreted into a complex administrative process¹⁵.

¹² Although many of those companies would no doubt have advisers, this simply displaces the point – it is valuable to anyone to know painlessly the outcome of an investment in advance.

¹³ An analogy the OTS often uses is that of the computer: we suspect everyone reading this paper, and almost all the people we talk to, uses a computer regularly. Most will find the interface and carrying out the tasks they do day-to-day easy. But few will have any idea of what really goes on inside the machine to make those tasks work. In other words, the underlying complexity is considerable; but its impact is well managed to produce a simple, usable system. That said, the underlying complexity is far from eliminated and continues to have an impact: who has not been frustrated at their inability to get the computer to do something, or been surprised when a colleague shows with a few clicks how something can be done?

¹⁴ One example of an exception to this rule might be PAYE, the system of deduction of income tax from an employee’s pay. The policy (income tax) might be thought of as fairly complex, the legislation is quite complex, but the implementation is very simple for at least one set of users (employees). Essentially employees – who actually are due to pay the tax concerned – get the calculation, deduction and payment done for them. It is of course complex for HMRC and (especially) employers, so it does not solve all of the issues.

¹⁵ Though not necessarily, in terms of the *impact* of complexity, as the various factors on the index try to test.

One point that the above diagram illustrates is that while the underlying complexity is determined by complexity inherent in the entire process, the impact of complexity is determined largely by the implementation i.e. the administrative process. This is for two reasons:

- As demonstrated above, additional complexity in a policy can actually reduce the impact of complexity
- Good administrative processes will reduce the impact of what is otherwise a complex policy

However, although the arrows in the above diagram illustrate the main 'flows', it is clearly possible for arrows to flow in additional directions – complex policy and legislation can mean complex impact. But the point is that complex impact can be mitigated by care over implementation.

Scoring the index: objective or subjective measures?

Ideally the measures used to construct the index would all be objective, so that the resulting index figure was objective. We have not been able to use only factors that are capable of objective measurement. Doing so would restrict the coverage of the index and make it more unbalanced: consequently we have included a variety of factors that require judgemental scoring.

To moderate the impact of judgement, we have set ranges for these items so that those scoring the index are pushed towards similar boundaries for their judgements¹⁶. The other way we have used to control the impact of judgement is to have a number of people score the index separately: most of the OTS team contributed their assessments which were then discussed and averaged. We also tested this externally in two workshops¹⁷ and adapted our ratings accordingly.

The result is that of the ten factors we have used in the index, five are objective and five are subjective (though two of these have some fairly objective aspects). We think this is a fair balance and we think we have tested the process sufficiently to validate the approach, bearing in mind that we do not intend the index to be a definitive measure.

Underlying Complexity

To develop the index we chose indicators based on the three areas of the policy implementation process and use two measures of complexity for each (see below). Using two for each area is both pragmatic and reflects findings from our work. The first iteration of the Index used the majority of the indicators that are in the final version but two more were

¹⁶ Annex 1 sets out the factors and ranges affected.

¹⁷ With the Chartered Institute of Taxation and RELX in September 2015: we are very grateful for their input.

added (and two dropped) to give a better balance and an improved link to the theory discussed above.

Policy complexity ('How difficult is it to understand the concept')

1. **Number of exemptions plus the number of reliefs** – Much of the structural complexity within a tax system stems from the existence of reliefs and special cases. Increasing the number of exemptions also increases the complexity, as it increases the complexity in deciding whether or not a taxpayer is exempt from tax. It helps to think of the process for identifying eligibility for a tax exemption/relief as a flow chart: the more items which have to be sorted through to determine taxpayer treatment, the more complex the flow chart.
2. **The number of Finance Acts with changes (since 2000¹⁸)** – Change is a significant contributor to complexity: during OTS consultations, change has repeatedly been identified as the single largest cause of complexity. In particular, change makes it difficult to plan for the future, which has an effect on the future treatment of a transaction or course of action.

It has been suggested that this indicator does not measure change, as it does not measure the **magnitude** of each change. A possible route to refine this would be to, for example, grade each year based on the number of new reliefs, exemptions and information obligations a tax measure requires of the taxpayer, and then give an average of the measured period to indicate the magnitude of change over time (possibly scaling the weighting of each year so that more recent years have more weight, as recent change provides more complexity). This has not been attempted here partly because there is an overriding need to keep the index simple, partly because it would be subjective. We note it as a possible future refinement.

Similarly, what is a change is made to simplify the area following an OTS recommendation? That would increase the complexity rating...yet it is simplifying. The counter argument is that we have always made the point that change means complexity and acknowledged that we have to show that a simplification change is 'worth it' so that it gets over the hurdle of adding complexity through requiring change. So whilst we note the point, we think it is still valid to assess 'gross' changes rather than try and assess 'net' changes.

Legislative complexity ('How difficult is it to understand the legislation')

3. **The Gunning-fog readability index¹⁹** – This gives a comparative indication of how easy the legislation is to read. Other measures are available, but generally involve

¹⁸ Using the year 2000 as a base is entirely subjective – we could go back to 1799 or start more recently. But our aim was to get a measure over a reasonable period of how much change there had been, given that volume of change has consistently been cited as the leading cause of complexity by businesses. A base year of 2000 gives a reasonable time span.

¹⁹ See gunning-fog-index.com

similar calculations, and for these purposes the main requirement is consistent appraisal across legislation.

One potential flaw is that the ‘readability’ test does not make any reference to definitions in legislation. The previous OTS project on definitions²⁰ identified several ways in which definitions contributed towards complexity. At its simplest, a multiplicity of definitions of the same term adds complexity²¹. We note in passing that section 301 FA 2014 (which allows a definition included in any Act to be amended by secondary legislation and was influenced by the OTS paper on definitions) should lead to some improvements.

Another point on readability is whether the provision can be read on a standalone basis – or does it require much cross-referencing and checking definitions elsewhere in the code? Arguably this rating should be subject to some sort of supplement if the provision needs a lot of work to gather in all the relevant material.

4. **Number of pages of legislation**²² – This measure gives a simple objective indication of complexity in terms of how long the legislation is. A complex policy can be expressed in simple, short legislation, and a simple policy in longer legislation. As is discussed in previous OTS publications, length of legislation is an indicator of complexity.

However, in using this indicator we readily acknowledge that there is a counter argument: that longer legislation can allow a measure to be better explained. Short legislation can appear almost as code. What has convinced us to continue using this indicator is firstly that the Gunning-Fog measure will balance this issue; but secondly (and importantly) that most people we talk to (and popular opinion) sees length of legislation as an indication of complexity.

Another challenge we have had on this factor is that we use only primary legislation; sure we should also use secondary legislation²³? Some taxes (NICs being a classic example) depends hugely on secondary legislation. This is a fair challenge; we push back a little because the two types of legislation tend to be constructed in very different ways. For the moment we have stuck with primary legislation but volumes of secondary legislation will be reflected to a degree in assessments of guidance and other factors.

Operational complexity ('How difficult is it to deal with the issue for the taxpayer')

²⁰ Paper published on the OTS website and at www.gov.uk/government/publications/definitions-in-tax-legislation-and-their-contribution-to-complexity

²¹ To give two of the examples in our definitions paper, the corporation tax legislation includes 45 definitions of ‘group’ and 37 of ‘company’.

²² Ideally the number of words should be used, as pages can be set out differently, different font sizes may be used or large footnotes can distort the true number of pages. However, it may be impractical to count the number of words unless a computer is involved.

²³ Statements of Practice and ESCs might also be in the mix.

5. **Complexity of HMRC guidance** – This is often the first, and sometimes only, place taxpayers will look when trying to meet their obligations; few will turn to the actual legislation. Therefore how easy it is to use is crucial. Complexity includes the availability of the guidance - sometimes guidance may not be in a single consolidated location and so will be more difficult to find. Here ‘guidance’ covers not only the HMRC manuals but also helpsheets and guides to completing HMRC forms.²⁴

‘Guidance’ could also be extended to cover the readability and accessibility of case law and extra-statutory concessions. These fall under the term ‘guidance’ in that they help with interpreting legislation. The effect of these on underlying complexity is not covered elsewhere in the index.

6. **Complexity of information requirement to make a return** – This criterion was added to include the difficulty for a taxpayer of gathering the information to meet their obligations. It is typically easier for a taxpayer to understand their tax obligations with less information being required to collect and submit to HMRC to make their return.

In the previous iteration of the index this factor was graded on a scale of 1 to 5. This approach had advantages, though a more objective approach may work better, such as by measuring the number of information obligations a taxpayer is required to provide to meet their obligation to HMRC.

Impact of complexity

Impact of complexity is currently measured using four separate indicators:

1. **Number of taxpayers** – it is surely uncontroversial to say that there is a direct relationship between the number of taxpayers a tax affects and the impact of its complexity: a measure’s impact is doubled if it affects two taxpayers rather than one.

However, there is an issue in terms of how one measures the number (and indeed the ability – see below) of taxpayers affected. Are we looking at the numbers within the ambit of the measure? Or those who directly have to grapple with it. CGT principle private residence relief affects a lot of people every year, but very few have to engage with its intricacies. On the other hand, IHT directly affects a small number of people, but large numbers are concerned with it and may be taking action to manage their exposure. We have scored at the moment in terms of those who are in its ambit – so PPR scores highly (and also highly because of the way taxpayers affected are generally in the ‘ordinary’ category); whereas IHT scores lower in terms of number affected. We are very willing to reconsider or expand guidance: comments would be welcome.

²⁴ We note that not all HMRC guidance will be published and the amount of guidance generated in areas may differ widely. But we can only assess what is there – what taxpayers may have to deal with.

2. **Aggregated compliance burden for a taxpayer and HMRC** – compliance burden measures the total cost to a taxpayer to fulfil their tax obligation. Costs to HMRC are also included, so that shifts between the two are captured. So if HMRC creates new processes which remove obligations from HMRC but cost taxpayers or their agents more, then the measure would probably not alter.
3. **Average ability of taxpayers** – Again, it seems evident that the lower the taxpayer’s ability, the greater the impact a complex tax area will have on them, as this affects their ability to deal with the tax.

This impact may already be reflected in the aggregated compliance burden. Irrespective of this, the information this indicator gives is important. We have therefore retained this figure in the index.²⁵

This differs substantially from the other indicators in that it is not an indicator of complexity, as the ‘ability’ of a taxpayer *determines* the impact of complexity rather than being a symptom of it.

4. **Revenue at risk due to error, failure to take reasonable care (FTRC) and avoidance** – the final impact of a complex tax system is that the tax paid is not always correct. In 2014-15 HMRC identified that they failed to collect £36bn worth of tax²⁶. Of this, £10.9 billion was due to either error, failure to take reasonable care, or avoidance. Each of these is a consequence of complexity inherent in the tax system. Loss of revenue affects the government’s ability to maintain public finances and invest in new developmental projects.

Previously this measure only took account of the amount of tax at risk from avoidance. This has been extended to reflect the fact that complexity has an impact upon the error rate. Additionally, complexity can provide opportunities for avoidance²⁷.

HMRC’s current tax gap figures are not sufficient for this indicator- they fail to take into account errors in HMRC’s favour, such as failure to adequately record all due expenses. HMRC do not currently record or publish figures for this amount.

Aggregating the indicators

It will be noted that we have ten indicators – an obvious round number, but not a requisite. The first version of the index aggregated the complexity factors into two figures through a

²⁵ Note that the first measure in this section – the number of taxpayers – does offset or moderate this measure in a sense.

²⁶ See HMRC, ‘Measuring tax gaps 2016 edition’ (20 October 2016), available at: https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/561312/HMRC-measuring-tax-gaps-2016.pdf

²⁷ The OTS has outlined a possible project to test whether it is possible to identify a more concrete link.

formula which required weighting each individual indicator of complexity. This created a number of problems, including:

- It created a loss of clarity when presenting the index, and was difficult to explain;
- The formula could produce scores above ten, which meant that truncation had to be applied to the final complexity scores; and
- To take account of changes to the tax system, the weightings would have to be adjusted every year to keep each of the indicators in equal value in relation to each other.

Because of these reasons, this iteration uses a standardisation formula, which scales each of the indicators into a number between 0 and 1. The formula is:

$$Y^1 = (Y - Y^{\min}) / (Y^{\max} - Y^{\min})$$

'Y' is the value of the indicator for a tax measure. 'Y^{min}' represents an indicator's lowest value across all tax measures, while Y^{max} indicates the highest. This formula will always produce a number between 0 and 1. This removes the need for truncation entirely, gives a much smoother presentation, and removes the need to adjust the weightings every year²⁸.

The aggregation formula is much simpler. A multiplication factor is also included to stretch the index to give scores between 1 and 10²⁹:

$$((Y^1 + Z^1 + \dots + n^1) / 6) * 10$$

Here n¹ represents a normalised indicator. A score of 10 indicates the most complex tax, and a score of 0 the least complex.

The annex to this paper contains an illustrative summary example of the index.

Structure of the tax index

We have published a separate paper with 'scores' for a large part of the tax system. We broke much of the tax system into 111 areas, divided by function. Some taxes are presented as a single whole, such as aggregates levy, while others have been divided up by function, such as corporation tax.

Breaking the system down in this way was part of our evolving and testing the Index methodology. The way the tax system has been broken down can result in some changes to the figures: this is most notable when comparing whole taxes such as inheritance tax against

²⁸ Changes to Y^{max} and Y^{min} will still need to be made, though these will be very easy to identify

²⁹ Though it could just as easily give scores between 1 and 6 and remove the need to divide by 6 and multiply by 10. The impact of the complexity formula differs slightly, as it divides by 4 and multiplies by 10.

smaller tax areas, such as a major relief³⁰. This is one approach to structuring the index; it is wholly arbitrary and dependent on the requirements users of the index have.

The legislation can be further changed and divided however desired. For instance, if the index was used in a policy context it could be modified so that each area aligned with an area that a policy professional was responsible for.

The only concern with modifying the structure of the index would be the effect this has on the scorings of each individual figure if the measures used to calculate Y^{\max} and Y^{\min} figures for an indicator. For example, inheritance tax currently has 89 reliefs, the most of any tax area³¹. This means it is used as Y^{\max} for the standardisation formula. If this was split into more than one tax measure, then Y^{\max} may decrease, which would result in a lower ($Y^{\max} - Y^{\min}$) figure. This would impact the complexity of every other tax in the index.

This sounds problematic but is not. It needs to be kept in mind that the index is a relative measure of tax complexity, not an objective one. Changes in the composition of the index result in a change to what a tax measure is being measured relative to in the first place. Changes to the scores in the index following a change in the composition of the index is to be expected. This is not a problem if the index retains a constant structure over time. If greater transparency over this is wanted, any use of the complexity figures could be published alongside the tax areas which being used to benchmark Y^{\max} and Y^{\min} .

Some points on the index result

(1) Are all taxes the same?

We set out to design an index that could be applied to all taxes (or areas of a tax) in the same way. We have had some challenges on this:

- We break some taxes down into sections but review others as an entity. We have tried to construct our index spreadsheet using a reasonable breakdown of taxes into areas; ideally they would all be equal of course but tax doesn't work like that. The answer may be that we develop protocols for how far a tax is segmented, accepting that the smaller the section that is being scored, the more vulnerable the scores may be to relatively small factors in practice. Equally it may just come down to using the results sensibly.
- Some taxes use secondary legislation much more than others – and the two styles of legislation are 'done differently'. This is noted above as an issue in terms of the 'pages of legislation' factor and is a fair challenge – though it is only one of ten factors of course.
- Indirect and Direct taxes are different. We think the methodology should be applicable to all taxes but would welcome comment on the point.

³⁰ Research and development relief would be a good example.

³¹ <https://www.gov.uk/government/publications/office-of-tax-simplification-complexity-index>

(2) Necessary and unnecessary complexity

When the underlying complexity and impact of complexity have been calculated, it is possible to assess whether a tax is relatively complex or not, and why. However, although this will inform the OTS's work, it cannot be the sole determinant, as often complexity in a tax measure is a consequence of real-world commercial complexity, which cannot be simplified.

Some taxes may in fact be necessarily complex. This could be because they seek to tax complex financial transactions or commercial structures. This means that simplification of the tax is not possible without either:

- Changing the policy objective³²;
- Finding a way to simplify the business situation or transaction³³; or
- Creating avoidance or non-compliance where additional complexity could have prevented it.

Since the key objective of the index is to provide policy makers with a measure to identify areas of tax which are appropriate for simplification, the ability to capture which taxes are necessarily complex and which are not is helpful.

Professor Ulph has suggested to us that this could be done through a comparison of underlying complexity and impact of complexity in relation to the measure of the complexity of the policy objectives involved. This has not been analysed in depth here as it would require an entirely different index to measure policy objective complexity, which is outside the remit of this paper. Using the index to its fullest effect in practice will require a measure of unnecessary complexity, to ensure that simplification is only achieved where it does not create damage to the overall tax system.

(3) Missing factors

Should we try and assess the difficulty of actually settling the tax on an area? The point has been made to us that some aspects of tax involve tying together a lot of issues whereas others are simply filing some figures that are immediately available. Some are regularly challenged by HMRC; others are settled automatically (assuming filed properly). We think that the 'Aggregated compliance burden for a taxpayer and HMRC' factor does reflect this, or is intended to, so we are not inclined to add in a separate factor (but have adjusted the 'scoring' guidelines).

(4) Which is the most important rating?

³² For example, the OTS has suggested exploring alternative ways of taxing the smallest business, perhaps taxing on the basis of a percentage of turnover, as a route to a simpler system. We looked specifically at a 'Lookthrough' basis of taxation but rejected that as a route to simplification: <https://www.gov.uk/government/publications/ots-final-report-on-lookthrough-taxation>.

³³ Changes in accounting rules may well mean that the tax treatment can follow more simply.

As noted above, we have developed the index away from a single rating for an area into showing a rating for both underlying complexity and impact of complexity. But does this go far enough? Are some components of the index more important than others?

We think that Operational complexity is the most important factor to the OTS. We have often made the point that, as with a computer, a good interface (for which read form/return for tax) can disguise the underlying complexity. So although the overall ratings for an area are going to be important to the OTS, we would probably be most influenced by how difficult the area is to deal with for the taxpayer. That is simply reflecting what the index is all about – our concept was primarily a tool that would help us assess areas for future work. The overall rating would be a crude indicator; we would always want to delve into a rating and see what really caused an area to be complex as that would guide our work. Similarly, policymakers would presumably be particularly interested in Policy complexity.

Existing legislation v future legislation: could the Index be used on policy development?

The basis of the Index is a tool to evaluate relative complexity in areas of the tax code, primarily to assist in identifying areas for the OTS to study with a view to simplification. However, it is natural to ask whether the index could be used prospectively rather than retrospectively: could it be used to test the complexity of draft legislation or policy proposals? If it could, it could become an important adjunct of tax policy development.

As the index is based on the ten factors, the main question is how well would these map to draft legislation or policy proposals. The overriding principle of assessing complexity under the two headings of:

- Underlying complexity
- Impact of complexity

seems equally valid for ‘forward looking’ as for the ‘retrospective’ assessment of the main index work to date. Extending its use in this way was always in the minds of the OTS as we developed the methodology, though we realised it would need some adaptation.

If the index is used on draft legislation or measures under consideration, it will inevitably be more subjective and less precise than the full version. That is not of itself a problem provided it is appreciated that the aim is not to give an exact measure of complexity but rather to give another indicator to those responsible (including Ministers) of the implications of the measure under consideration.³⁴

It would be easier to assess a measure that will need a fair ‘chunk’ of legislation – e.g. at least a schedule – rather than a single clause measure. That is simply because there will be more to assess the factors on – and it is more likely to be a matter of some significance.

³⁴ We should repeat here note 8 above: during the development of the index the OTS was referred to the French system which at one stage simply required those bringing forward a tax measure to assign a ‘star rating’ from 1 to 5, where 1=simple to 5=very complex. If a Minister introduced a 5 star measure, they could expect to be challenged on why such complexity was needed.

The ten factors need some adaptation. It will be recalled that five of the factors are judgemental (marked * below); the others are intended to be objective.

- 1) Number of reliefs – this is a measure to assess how many changes and exceptions there are inherently in the area. It is not easy to see how it could be used to a new measure unless it was in effect a new tax or area of charge (e.g. Diverted Profits Tax). There is no immediately obvious alternative. It may be best to just drop it for the forward-looking assessment.
- 2) Number of Finance Acts with changes since the measure was introduced – this is a proxy for the frequency of change, a strong indicator of complexity. It could be adapted slightly to count the number of FAs prior to the current one which had this item in – in other words, the more goes there have been at getting the item right (or the more it has been changed), the higher the rating.
- 3) Readability – this is the Gunning/Fog index; if the legislation has been drafted it can be applied as normal. If the measure is still being debated prior to commissioning draftsmen, it can't be used.
- 4) Number of pages of legislation – it is arguable whether this is a real measure of complexity but many people do see longer legislation as more complex. Even if the legislation has yet to be drafted, an estimate can be made.
- 5) *Guidance complexity – although the guidance will not have been drafted, there will no doubt be a feel for how much will be needed. Is the measure going to stand alone (if so 1) or need copious guidance as the legislation is brief and complex (score 5)?
- 6) *Complexity of information required to make a return – how easy is it going to be to deal with the measure? It should be possible to estimate this for a new measure – this should flow from the work that will be needed for the TIIN³⁵.
- 7) *Net average cost to taxpayers and HMRC – this is the effort required by taxpayers and HMRC. Again, some form of estimate can be made, influenced by the work on the TIIN.
- 8) Numbers of taxpayers affected – ranging from 1 (specialised – only affects a few) to 5 (very wide impact).
- 9) *Average ability of taxpayers – for FTSE 100 only (score 1) or ordinary individuals (score 5). This should be something that can be judged for a draft measure from the start.
- 10) *Risk of avoidance/error/fraud – what compliance risk is there? Again, this is something that must be capable of early judgement.

The same scoring/aggregating process can be used to get to overall scores, with adjustments to reflect that only five (or possibly four) factors are used in the underlying complexity section.

³⁵ TIIN = Tax Information and Impact Note – a document that accompanies most proposals of any significance. As gov.uk puts it: 'TIINs provide a clear explanation of the policy objective together with details of the tax impact on the Exchequer, the economy, individuals, businesses, civil society organisations, as well as any equality or other specific area of impact'.

Trying to score draft measures not yet in force will inevitably be rough and ready and more subjective than would be the case with something that has been in force for a while. This should not invalidate the process: the aim is to get a comparative rating for a measure and prompt discussion rather than arrive at an absolute rating or a pass/fail. Some might say we are simply duplicating the TIIN, but using the index is meant to complement the work and bring a simplification aspect to the TIIN – something that is not currently present.

Conclusion

The OTS believes that it has developed the index sufficiently in line with the aims of the project. We believe that it includes indicators and tax measures relevant to the current economic climate. The evolving tax system may create requirements or opportunity for more tax measures or indicators, so the index is by no means a fixed, final work. We have already noted some possible further refinements.

We have discussed how the index may be used in practice to track the relative complexity of measures in the tax system, and to prioritise simplification reviews of the tax system. The index could potentially be a useful tool for the UK government if it was used to track the complexity of the tax system over time, identify where that complexity is creating difficulty for tax payers, and to simplify the tax system. As we noted, we think the index could readily be adapted for use in areas other than taxation and also for prospective measures.

One area the index does not cover is a measure of necessary or unnecessary complexity. Some areas of the tax system will be necessarily complex, and for these areas substantial simplification is not possible. To properly take advantage of the opportunities afforded by the index, a measure of necessary complexity needs to be established and measured alongside the index.

Finally, it has been suggested that the index could be aggregated into a single measure of the complexity of the UK's tax system. This has obvious potential attractions: a rolling measure of complexity would allow an assessment of the impact of each Finance Act. Did it increase or reduce the complexity of the system?

It would then potentially be possible – at least in theory – to compare countries' tax systems. It would be an interesting indication of the attractiveness of Country A's tax system if it had a rating of 4.5 compared with Country B's rating of 7.2. But we have to caution against any assumption that such extension of our work would be easy. We also have to reiterate the aims of the index: primarily to inform the OTS's future work. But extending the index in these directions would undoubtedly be interesting!

ANNEX 1

How to fill in the index: the five 'judgement factors'

The five 'judgement factors' and the intended way of scoring them are:

Guidance complexity – enter either 1 (simple), 3 (middling) or 5 (complex). This is the complexity of HMRC guidance in leaflets, manuals and on the website. Sheer volume of material is a guide: if the area needs a lot of material to explain how it works, that is an indication that it is probably complex. We are looking for a subjective impression here. Bear in mind that as we measure legislation in terms of primary legislation, if there is a lot of secondary legislation that may warrant increasing this rating, although it is not intended as a proxy for secondary legislation.

Complexity of information required to make a return – again, enter either 1 (simple), 3 (middling) or 5 (complex). If the information required is readily available from other records, such as accounting systems, it should score 1. If the taxpayer needs to keep separate records, for example for R&D relief, it scores 5. Similarly, if extracting the information needed for the return needs a lot of effort, then that would be indicative of a higher rating.

Net average cost to taxpayers and HMRC – this is all about the amount of effort required to deal with the area/issue. Most of those who complete the scoring won't have direct knowledge of the amount of time cost HMRC expend but will be able to form a view. We do think it is important to assess both 'sides' of the exercise here. If it is quick and easy for both sides, that scores 1 (low), 3 is middling and 5 means a lot of work is going into it collectively. Bear in mind that this is meant to assess the full cost of dealing with the matter – so if it is an issue that is going to require a lot of gathering of information and consideration of wider factors before the taxpayer can file, then that points to a higher rating. If the area is likely to lead to a dispute before it is settled, again that points to a higher rating.

Average ability of taxpayers – this is 5 for unsophisticated taxpayers such as individuals, 4 for represented taxpayers (including individuals) with agents, 3 for medium sized businesses, 2 for FTSE 250 companies and 1 for FTSE 100 companies and high net worth individuals. The need is to think about who the measure reaches and therefore has to consider it: if it is aimed at FTSE 100 companies and really only affects them, that will be a 1; if it is aimed at FTSE 100 but ends up as something that all companies have to worry about that would score 4. Use the number for the largest significant group affected.

Risk of error, evasion or avoidance – Again, we are looking for a guess. More than £500 million a year tax at risk from error, evasion and avoidance scores 5, £250m - £500m scores 4, £100m-£250m scores 3, £10m -£100m scores 2, £0-10m scores 1. Bear in mind this is risk, rather than actual leakage and relates to the UK as a whole, not just one taxpayer. So IR35 undoubtedly protects a lot of tax at risk, even if it brings in modest amounts directly, so it would score highly.

ANNEX 2

Illustrative example of complexity index

Area of Tax	γ^{\max}	γ^{\min}	Air passenger duty	Inheritance Tax	Landfill Tax
Number of exemptions + number of reliefs	89	0	10/ 0.11	89/ 1	9/ 0.1
Number of Finance acts with Changes	13	0	8/ 0.6	13/ 1	7/ 0.54
Readability Index	33.35	9.3	11.67/ 0.1	11.72/ 0.1	13.49/ 0.17
Number of Pages of legislation	198.75	2	62*/ 0.3	198.75*/ 1	47.25*/ 0.23
Guidance Complexity	5	1	2/ 0.25	5/ 1	3/ 0.5
Complexity of information required	5	1	3/ 0.5	4/ 0.75	2/ 0.25
Total Underlying Complexity	(total out of 10)		3.1	8.1	3

*FA2014 includes provisions for all these taxes, albeit small ones. The 'number of pages' indicator is therefore slightly out of date, as the Tolleys books used to measure it have not been released

Area of Tax *	Air passenger duty	Inheritance Tax	Landfill Tax
Net average cost to taxpayers and HMRC	1/0	5/1	1/0
Number of taxpayers affected	1/0	2/ 0.25	1/0
Average ability of taxpayers	4/ 0.75	3/ 0.5	3/ 0.5
Avoidance Risk	1/0	5/1	1/0

Total Impact of Complexity	1.9	6.9	1.3
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*Y limits have been omitted for the sake of space; $Y^{\max}-Y^{\min}$ is 4 in every instance