Office of
Tax Simplification

The OTS Complexity Index – version 2

In December 2012 the Office of Tax Simplification (OTS) published the first iteration of its Complexity Index.[1] The index is meant to be a methodology for assessing the relative complexity of various factors within a section of tax legislation and so deriving an overall rating for complexity within the tax system across different pieces of tax legislation. Following publication a number of comments were received on the index[2] and the work was developed further in discussion with HMRC and other interested parties.

This paper sets out the second iteration of the index including some significant changes to the methodology.

A second iteration of the OTS Complexity Index

Following the publication of the complexity index methodology in December 2012, the OTS have been refining and improving the index. For this second iteration, the index has been separated into two distinct parts. The first aims to measure **underlying** complexity, whilst the second aims to capture the **impact** of complexity. The original version of the index contained (and aggregated) elements of both of these, but it is now felt to be important to draw the distinction as follows.

- **Underlying Complexity** is the intrinsic complexity found in the structure of the tax - this consists of policy and legislative complexity

- **Impact of Complexity** is a combination of both the cost of compliance to an individual taxpayer and the aggregated cost of compliance for all taxpayers. This is distinct from underlying complexity due to the role played by the impact of policy. Although underlying complexity can have an effect on the impact of complexity (i.e. by structuring a tax measure in a way that applies to more customers), how the measure is implemented can affect overall complexity.

One of the main benefits of using this split is that it can be seen why a particular area has such a significant impact on taxpayers and/or HMRC by looking at the separate complexity scores. Splitting the intrinsic complexity from its impact also reduces the double counting which was present in the first iteration and had been a source of criticism from some commentators on the methodology.[3]

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[1] https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/193493/ots_complexity_index_methodology_paper.pdf
[2] https://www.gov.uk/government/publications/tax-complexity-project
[3] See Professor Ulph's and Richard Baron's critiques of the first iteration:
https://www.gov.uk/government/publications/tax-complexity-project

As with the first iteration a methodology has been published, rather than an index populated with figures. At this stage of the project it is felt best for others to comment on the methodology rather than to examine its detailed application to the tax system.

Before explaining how the two parts of the index work, and giving some examples of applying the index to tax legislation, 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.
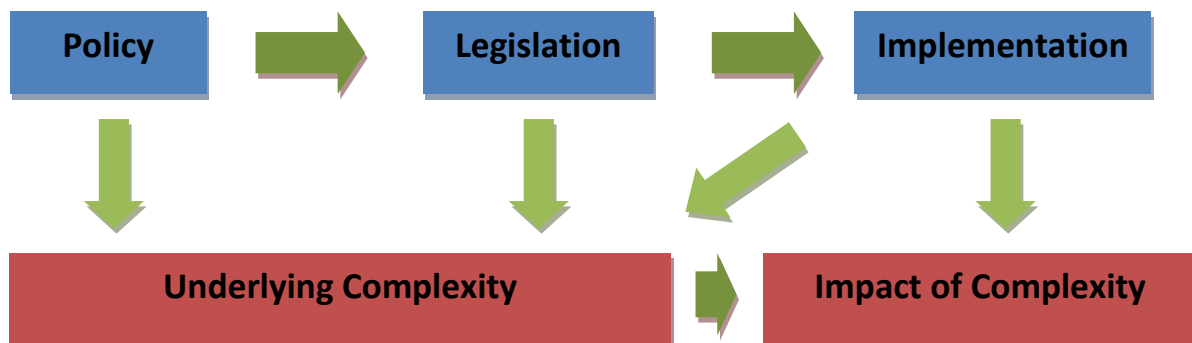
The process diagram above indicates that complexity in one part of the system will often (but not always) lead to complexity in subsequent parts.[4] . The process has two additional elements, which were omitted for the sake of simplicity.

1. **Consultation** normally enters the process between the policy and legislative stages. Consultation can reduce complexity by ensuring that taxpayers and HMRC can work together to create legislation that is clear, has no unintended consequences and has been developed with regard to practical implications. But it can increase complexity as special interest groups seek extra exemptions and reliefs

2. **Feedback** from implementation can provide extra evidence which can inform future policy design and objectives

Complexity can be minimised by following some broad guidelines when designing policy, legislation, and implementation. The OTS plans to develop some general principles to minimise tax complexity in future.

The index: underlying complexity

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[4] One example of an exception to this rule might be PAYE – 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, ie the employees. It is of course complex for employers and HMRC so it does not solve all of the issues.

This part of the complexity index builds on the tax complexity diagram above. It takes the three areas: policy, legislation and implementation, and uses two measures of complexity for each.

Policy complexity

1. ***Number of exemptions plus the number of reliefs*** – In the first iteration the number of reliefs was originally under legislative complexity, but it is felt that a modified version, which also accounts for exemptions, is more appropriate here. It is established that much of the 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. The reduction in the number of taxpayers affected is reflected in the impact of complexity, which will be discussed later in this paper.

2. ***The number of Finance Acts with changes (since 2000)*** – This criterion is retained from the first iteration because change is a significant contributor to complexity. As with the number of reliefs, it is more appropriate to include this as policy complexity rather than legislative, as much of the change in the Finance Acts is because of changes in policy.

Legislative complexity

3. ***The Gunning-Fog readability index*** – This is retained from the first iteration because it gives a comparative indication of how easy the text itself is to read. Other measures are available, but generally involve similar calculations and for these purposes the main requirement is consistent appraisal across legislation[5].

4. ***Number of pages of legislation***[6] – This measure gives an objective indication of how long the legislation is. This measure is entirely separate from the policy complexity: a complex policy can be expressed in simple, short legislation, and a simple policy in longer legislation. As is discussed in previous publications (which can be found here), length of legislation can contribute towards complexity.

Operational complexity

5. ***Complexity of HMRC guidance*** – This measure is retained from the original index. It is often the first, and sometimes only, place taxpayers will look when trying to meet their obligations. 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 so will be more difficult to find. Here 'guidance' covers not only the HMRC manuals but also helpsheets and guides to completing HMRC forms.

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[5] We would acknowledge that the reverse can also be true: that longer legislation can solve complexity by allowing full and careful setting out of the issues involved. For the present we have retained length as a measure of complexity partly because it is a simple and objective measure but mainly because most people do seem to view length as an indicator of complexity.

[6] Ideally 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.

6. ***Complexity of information requirement to make a return*** – this is a new criterion which captures the difficulty in gathering the information required for the taxpayer to meet their obligation. The process is significantly less complex if little or no information is required compared to a situation where a significant amount of different information, some of which may not be easily accessible, is needed. Whilst the amount of information required is clearly a factor, this must be considered in context as in many cases providing one simple piece of data for two hundred employees may be much easier than providing twenty pieces of information for five or six employees.

The first four of the criteria are measured in absolute terms. The final two, for operational complexity, are measured on a one to five scale. An explanation of the one to five scorings can be found in the annex.

The index: impact of complexity

In capturing the impact of complexity two things are essentially being considered:

- How much does it cost the individual taxpayer (and HMRC)?

- How many taxpayers are affected i.e. the aggregate impact?

This distinction is made to emphasise several points. First, the main focus is on the overall impact of the complexity of a particular tax area (as well as the system as a whole). The OTS wants to make the biggest impact for the most taxpayers when choosing parts of the system to review. Secondly, it is also useful to know what factors contributed to this complexity: is it a few taxpayers who are using a lot of resource, or is it many taxpayers using a smaller amount of resource? Are they sophisticated taxpayers or are they taxpayers who struggle with their compliance burden?

The makeup of this part of the index reflects the following elements.

Average resource cost

a) ***Net average cost per taxpayer, incurred by taxpayers and HMRC*** – This measure looks across both sides of the system i.e. taxpayers and HMRC. By including both sides of the equation, shifts in resource costs between the two sides can be captured. Note that ideally resources spent on avoidance would be included in this measure, although this information is unlikely to be readily available.

Aggregate impact

b) ***Number of taxpayers*** – This measure comes from the first iteration. Multiplying the number of taxpayers by the average cost per taxpayer gives the total impact from a particular piece of legislation.

c) ***Average ability of taxpayers*** – This also comes from the original index. It allows the question "does it matter if it's complex?" to be answered. If complexity affects

sophisticated taxpayers only, then this may be of less concern than if it affects for the average small business or pensioner.

d) ***Avoidance risk*** – Again this comes from the original index. Avoidance can generate complexity because it creates a need for detailed anti-avoidance rules. Professor David Ulph noted in his paper on tax complexity that in some cases avoidance may be a rational response to complexity.[7]

Each of the four criteria set out above are measured on a scale of one to five which is explained in the annex.

Weightings

To aggregate the individual factors into our two complexity scores we apply a weighting to each criteria. This is retained from the original methodology:

$$(c1*w1 + c2*w2 + ... + c7*w7)/80 = \text{index rating}$$

Where, c^x = criteria or score out of 5 and w^x = weighting

A particular area of interest which gave rise to a number of comments on the first iteration of the index was how to combine the different criteria into a single index score. Indeed, one respondent suggested that they should not be combined; rather the individual criteria should speak for themselves.

We noted with the first iteration that the weightings are subjective and could be adjusted to fit different preferences. Whilst this flexibility was considered to be positive, it does offer a layer of opaqueness when judging changes in the index from one year to the next. It would also be preferable to have a set of weightings based on the preferences of a wide population of users of tax legislation.

For the second iteration the weighting system has been retained, as it allows users to combine the scores for individual factors into a single figure between 1 and 10 for each overall category, i.e. intrinsic complexity and impact of complexity. This gives a simple overall impression of relative complexity, but also allows analysis of the individual criteria scores to understand why an area is complex and who it is affecting most. We have designed the weighting system so that each measure in the index contributes roughly equally to the final complexity score. We will need to refine the weightings as we apply the methodology to more parts of the tax system.

Example – aggregates levy, air passenger duty and bank payroll tax

The table below shows example scores for the aggregates levy, air passenger duty and bank payroll tax based on the second iteration of the index. These have been scored by OTS team members who are not specialists in these areas to illustrate the methodology; the figures are purely illustrative of what kind of results the methodology tends to produce:

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[7]https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/193497/ots_david_ulph_measuring_tax_complexity.pdf

Area of Tax	Weighting applied in Total Measure[8]	Aggregates Levy	Air Passenger Duty	Bank Payroll Tax
Underlying Complexity				
Number of exemptions + number of reliefs	4	27	10	2
Number of Finance acts with Changes (since 2000)	14	7	7	0
Readability Index	6	11.78	11.67	16.42
Number of Pages of legislation	1	62	15	16.5
Guidance Complexity	20	2	3	1
Complexity of information required to make a return	20	3	1	4
Total Underlying Complexity[9]		5.5	3.8	2.0
Impact of complexity				
Net average cost to taxpayers and HMRC	25	4	1	2
Number of taxpayers affected	25	1	1	1
Average ability of taxpayers	25	2	4	1
Avoidance Risk	25	1	1	1
Total Impact of Complexity[10]		4.0	3.5	2.5

Similar conclusions for this example can be drawn compared with the first iteration. The underlying complexity measure would normally score between 1 low) and 10 (high) so a score of 3.8 can be regarded as low complexity and 5.5 as of middling complexity. Aggregates levy displays a significantly higher level of underlying complexity, due to the much larger number of exemptions and reliefs, combined with the larger number of pages of legislation. Air passenger duty has a level of intrinsic complexity in between the other two taxes, combined with a lower level of impact. The second iteration is therefore broadly consistent with the original version, but the methodology is more robust and offers extra information. It is also noticeable that the bank payroll tax scores relatively low despite such factors as its readability and return information, thanks to its stability and paucity of exemptions and reliefs.

Conclusions

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[8] These weightings have been chosen to give roughly equal weight to each measure.
[9] This was calculated using the following formula: (4*x) + (14*y)… /80
[10] This was calculated using the following formula: (25*x) + (25*y)… /50

As after the first iteration, the complexity index remains very much a work in progress and it is recognised that the methodology is pragmatic. However, we think it is important to develop a tool which can be used for identifying complexity. The OTS welcome any comments and feedback on the methodology, in particular whether other factors of complexity should be included in the methodology. Once the index methodology has been refined further, the work will be taken forward by applying it to particular areas of the legislation and canvassing views from individuals and groups working in those fields.

Annex: The one to five scoring system

Many of the criteria used in the complexity index are scored out of five. For each of the criteria the assignment of a number from one to five means something different. This is meant to result in a series of objective measures, though it is accepted that the allocation of the one to five ratings has a measure of subjectivity, though one that can potentially be managed by asking a range of people for their 'scores'. The table below summarises the scoring system:

Table A – one to five scorings for criteria

HMRC guidance (Based on length of guidance, ease of navigation, other guidance (e.g. OECD), frequency of change)	Rating
Complex	5
	4
Medium	3
	2
Straightforward	1

Complexity of information requirement to make a return	Rating
Complex	5
	4
Medium	3
	2
Straightforward	1

Net average cost of per taxpayer, incurred by taxpayers and HMRC	Rating
High	5
	4
Medium	3
	2
Low	1

Number of taxpayers	Rating
>10 million	5
2 - 10 million	4
100,000 - 2 million	3
10,000 - 100,000	2
< 10,000	1

Average ability of taxpayers

	Rating
Individuals/ unrepresentative businesses	5
Small businesses/ represented	4
Medium sized businesses	3
FTSE 250 - FTSE 100	2
FTSE 100/ HNWI/ MNCs/ specialised businesses	1

Avoidance risk

	Rating
>£500 million	5
£250 million - £500 million	4
£100 million - £250 million	3
£10 million - £100 million	2
< £10 million	1