HM Revenue
& Customs

Measuring tax gaps 2016 edition

Tax gap estimates for 2014-15

An Official Statistics release 20 October 2016

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6.5%

The tax gap is estimated to be £36 billion, which is 6.5% of theoretical tax liabilities.

What is the tax gap?

The 'tax gap' is the difference between the amount of tax that should, in theory, be collected by HMRC, against what is actually collected.

Why do we measure it?

The tax gap provides a useful tool for understanding the relative size and nature of non-compliance. This understanding can be applied in many different ways:

- Firstly, it provides a foundation for HMRC's strategy. Thinking about the tax gap helps the department to understand how non-compliance occurs and how the causes can be addressed.
- Secondly, drawing on information on how other countries manage their tax gaps, our tax gap analysis provides insight into which strategies are most effective at reducing the tax gap.
- Thirdly, although the tax gap isn't sufficiently timely or precise enough to set performance targets, it provides important information that helps us to understand our long-term performance.

Why is there a tax gap?

The tax gap reflects tax lost for a variety of reasons, from taxpayers simply not taking enough care with their tax returns to criminal attacks on the tax system.

How is it calculated?

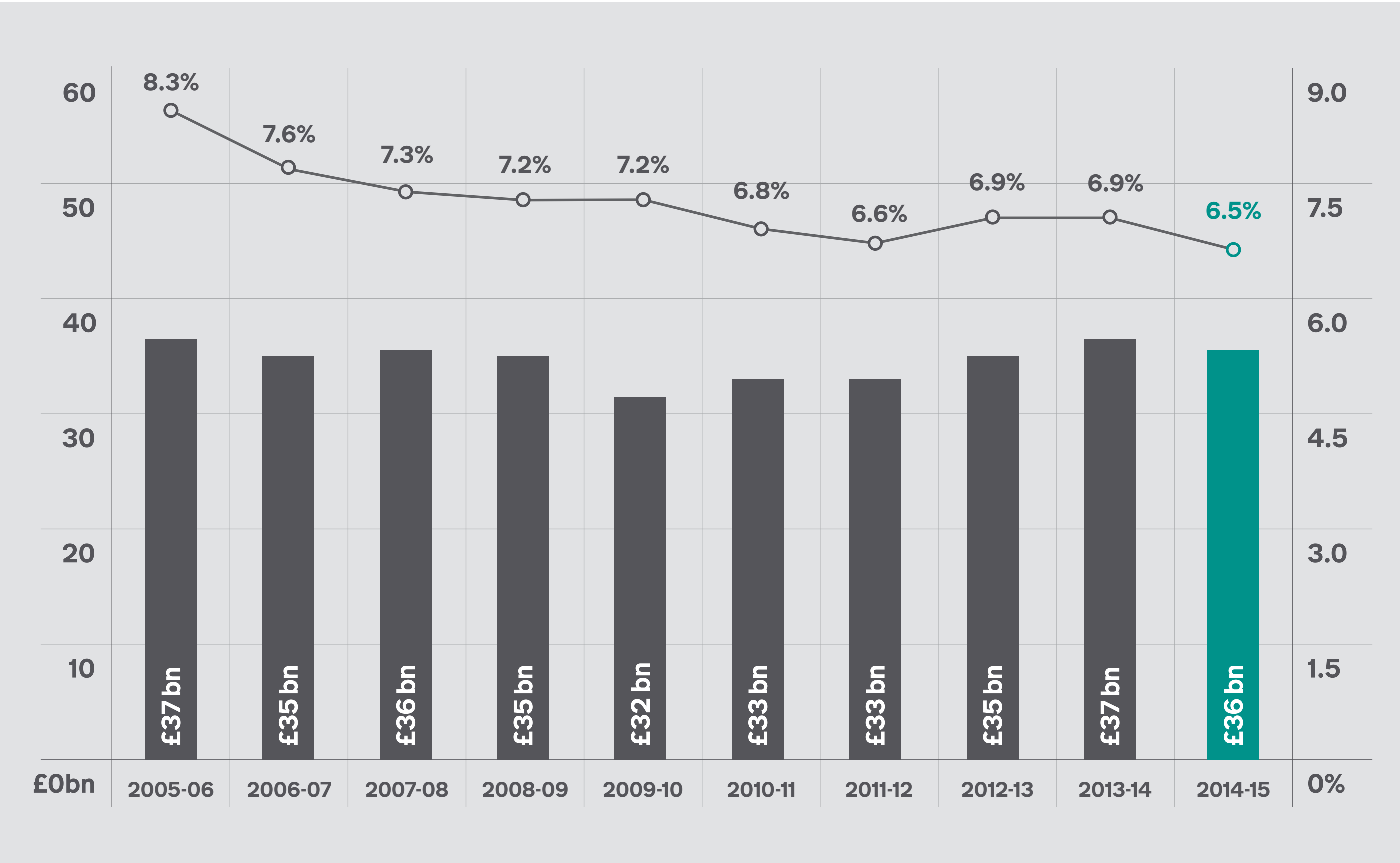
It has been produced by government analysts working within HMRC, in line with the values, principles and protocols set out in the Code of Practice for Official Statistics. We use a range of internal and external data and different analytical techniques to produce annual estimates, which we revise as more accurate data becomes available. These are our best estimates based on the information available, but there are many sources of uncertainty and potential error.

UK tax gap at a glance
in 2014-15

6.5%

The tax gap is estimated to be £36 billion, which is 6.5% of theoretical tax liabilities.

Tax gap and percentage of theoretical tax liabilities: 2005-06 to 2014-15



What is the tax gap?

The 'tax gap' is the difference between the amount of tax that should, in theory, be collected by HMRC, against what is actually collected.

Why measure it?

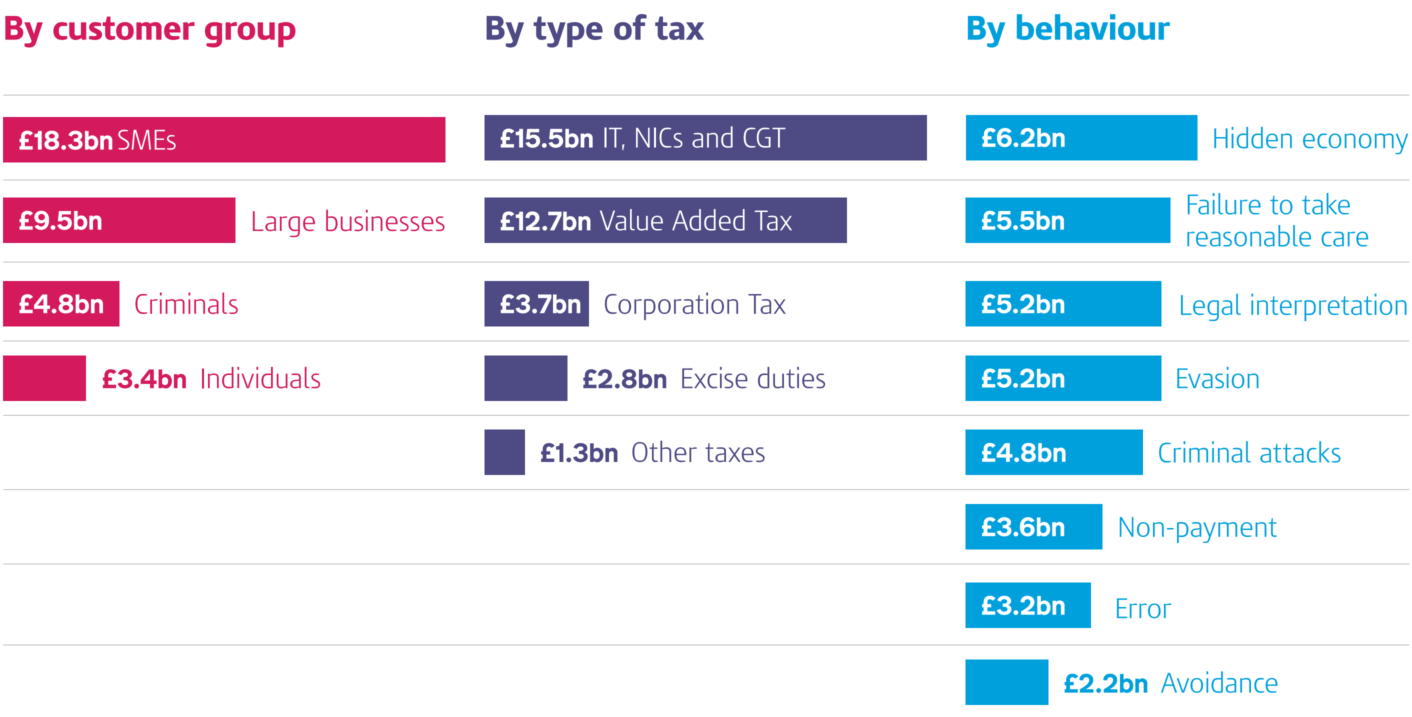
Tax gap analysis helps us to understand the reasons for losses in the tax system.

How is it calculated?

It's an Official Statistic produced using many different approaches that have been endorsed by the International Monetary Fund.

The tax gap is difficult to measure – there are many sources of uncertainty and error. However, it gives an indication of our long-term performance – we have seen that the tax gap has decreased since 2005-06.

Value of the tax gap



A full time series for tables is available on our website
www.gov.uk/government/statistics/measuring-tax-gaps-tables

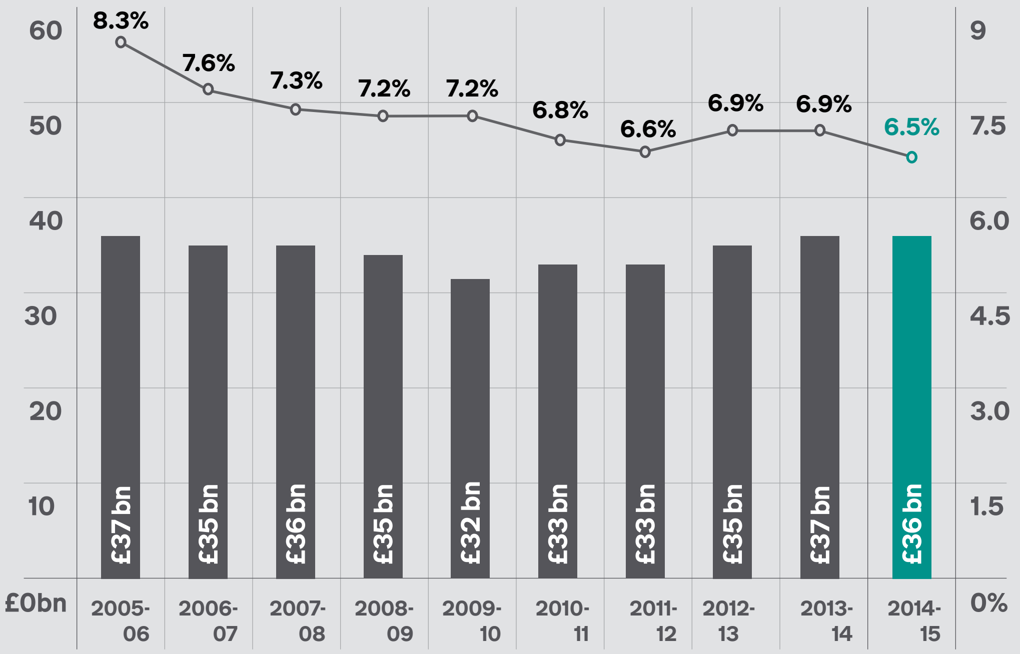
Summary

Key findings

- The UK tax gap for 2014-15 is estimated at 6.5% of liabilities (£36 billion). The tax gap has reduced from 6.9% of liabilities in 2013-14.
- There is an overall downward trend from 8.3% in 2005-06 to 6.5% in 2014-15, however the tax gap has levelled out in recent years.
- The tax gap estimate of £36 billion is £11 billion lower than it would have been if the percentage tax gap had remained at the 2005-06 level of 8.3%.
- There has been a large reduction in the Pay As You Earn (PAYE) tax gap estimate from £4.0 billion in 2013-14 to £2.8 billion in 2014-15. The introduction of Real Time Information is likely to have made a significant contribution towards this reduction.
- The VAT tax gap is at its lowest level of 10.3% for 2014-15.
- There is a long-term reduction between 2005-06 and 2014-15 for the excise duty tax gap (8.0% to 5.3%) and the Corporation Tax gap (13.5% to 7.6%).
- The tax gap estimate for 2013-14 has been revised upwards by £2.8 billion. The latest data from random tax enquiries investigations suggests that the scale and amount of non-compliance is higher than we had previously estimated, particularly for Self Assessment customers. This revision is within the confidence interval of the previous year's estimate.

What the tax gap estimates show since 2005 – tax gap time series: 2005-06 to 2014-15

Figure 1.1: Tax gap as a percentage of theoretical tax liabilities



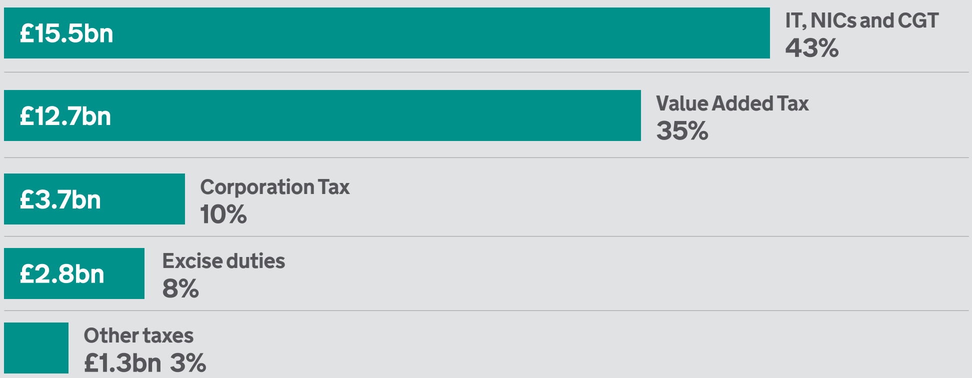
There has been a long-term trend of reduction in the tax gap from 8.3% in 2005-06 to 6.5% in 2014-15, levelling out in recent years. Figure 1.1 shows the value of the tax gap alongside the percentage tax gap, which is calculated as a percentage of total theoretical tax liabilities, or the amount of tax that should, in theory, be paid.

The percentage tax gap provides a better measure of compliance over time, because it takes account of some of the effects of inflation, economic growth and changes to tax rates, where the cash figure does not. For example, in a growing economy where the tax base is increasing, even if the percentage tax gap remained level, the cash figure would grow.

Tax gap by type of tax

Figure 1.2 shows how the tax gap is composed of different taxes. The largest component covers income tax, National Insurance Contributions and Capital Gains Tax (IT, NICs and CGT), which makes up 43% of the total tax gap.

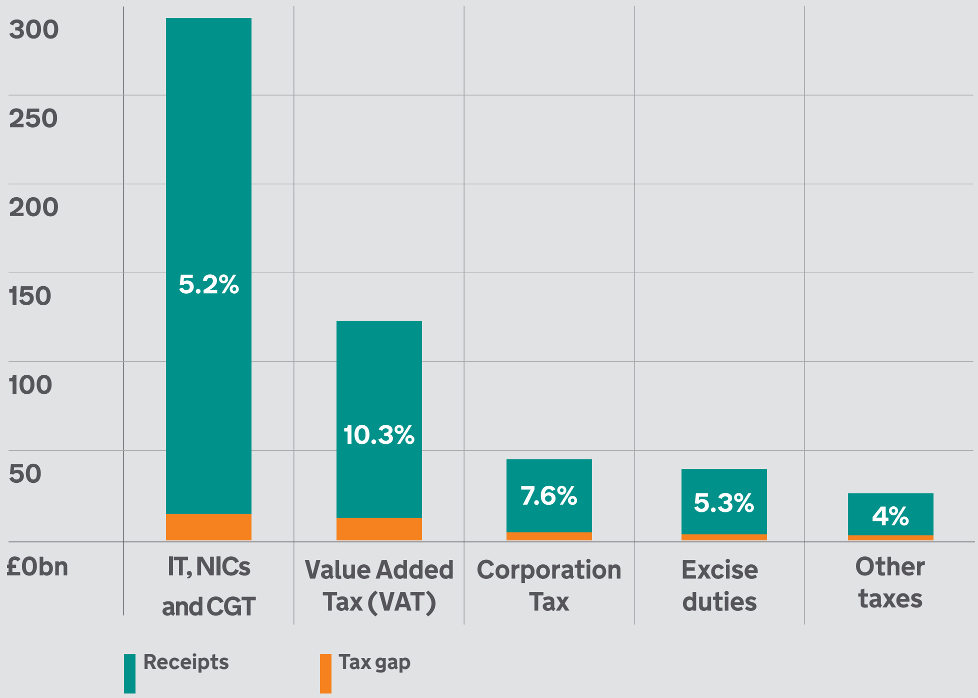
Figure 1.2: Tax gap by type of tax – value and share of tax gap, 2014-15[1]



1 Totals may not sum due to rounding.

Figure 1.3 represents the tax gap relative to amount of tax collected by type of tax. The tax gap, plus tax collected, together represents the total theoretical tax liability. Most of the tax collected is from IT, NICs and CGT (53% of receipts) and VAT (23% of tax receipts). It also shows that the tax gap for IT, NICs and CGT of £15.5 billion equates to just 5.2% of the total theoretical tax liabilities. This can be compared to the VAT tax gap (£12.7 billion) which equates to 10.3% of VAT theoretical tax liabilities.

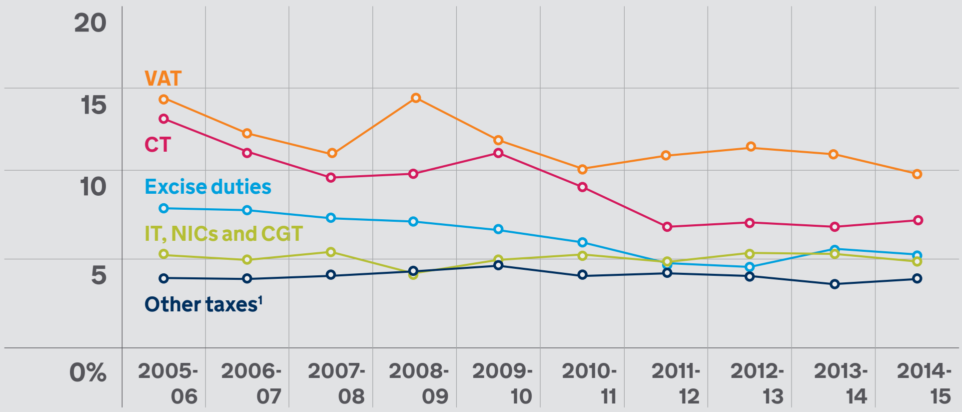
Figure 1.3 Tax gaps relative to tax due, 2014-15[1]



1 Percentage figures refer to tax gap for each type of tax.

The largest proportionate falls between 2005-06 and 2014-15 have been in the Corporation Tax and excise percentage gaps (see Figure 1.4), which have fallen by 44% and by 20% respectively.

Figure 1.4: Tax gap as a percentage of theoretical tax liabilities, 2005-06 to 2014-15



1 'Other taxes' includes Stamp Duties, Inheritance Tax, Petroleum Revenue Tax, environmental taxes, Insurance Premium Tax and Landfill Tax.

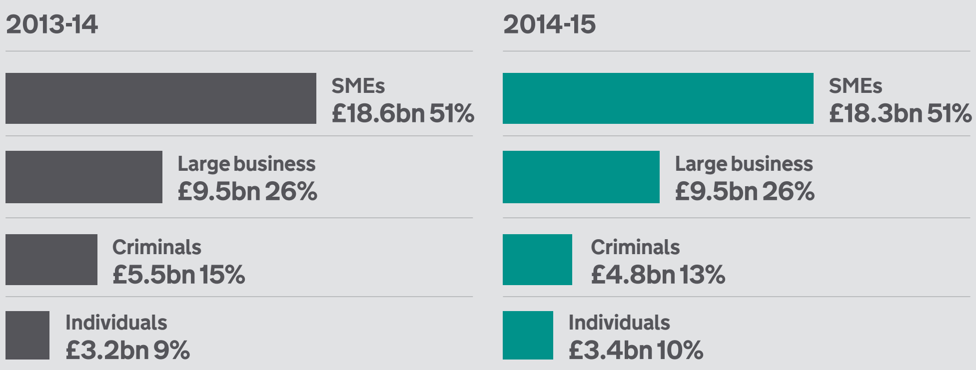
Table 1.1 (at the end of the chapter) shows the composition of tax gap estimates for 2014-15.

Table 1.2 (at the end of the chapter) shows the percentage tax gap since 2005-06 by type of tax. A time series of the tax gap (cash figure) by type of tax from 2005-06 to 2014-15 is shown in Table 1.3 (at the end of the chapter and in the online tables).

Tax gap by customer group

Figure 1.5 shows estimates of the 2013-14 and 2014-15 tax gaps by customer group. Just over half of the 2014-15 tax gap can be attributed to small and medium-sized enterprises, known as SMEs and just over a quarter from large businesses. The remainder is split between criminals and individuals. An element of judgement is used in compiling these estimates.

Figure 1.5: Tax gap by customer group — value and share of tax gap, 2013-14 and 2014-15[1]



1 Totals may not sum due to rounding.

Table 1.4 (at the end of the chapter) shows a time series of tax gap by customer group, as a percentage of total theoretical tax liabilities. This shows that the breakdown of the tax gap by customer group over the past five years has been broadly stable.

Tax gap by behaviour

The tax gap covers a range of behaviours which include: the tax that is lost through non-payment, use of avoidance schemes, interpretation of the tax effects of complex transactions, error, failure to take reasonable care, evasion, the hidden economy and criminal attack on the tax system.

Figure 1.6 shows an estimate of taxpayer behaviours within the tax gaps for 2014-15. These estimates give a broad indication of behaviours and are calculated using assumptions and judgment.

The behaviours are defined in Table 1.7 (at the end of the chapter).

Figure 1.6: Tax gap by behaviour – value and share of tax gap, 2014-15

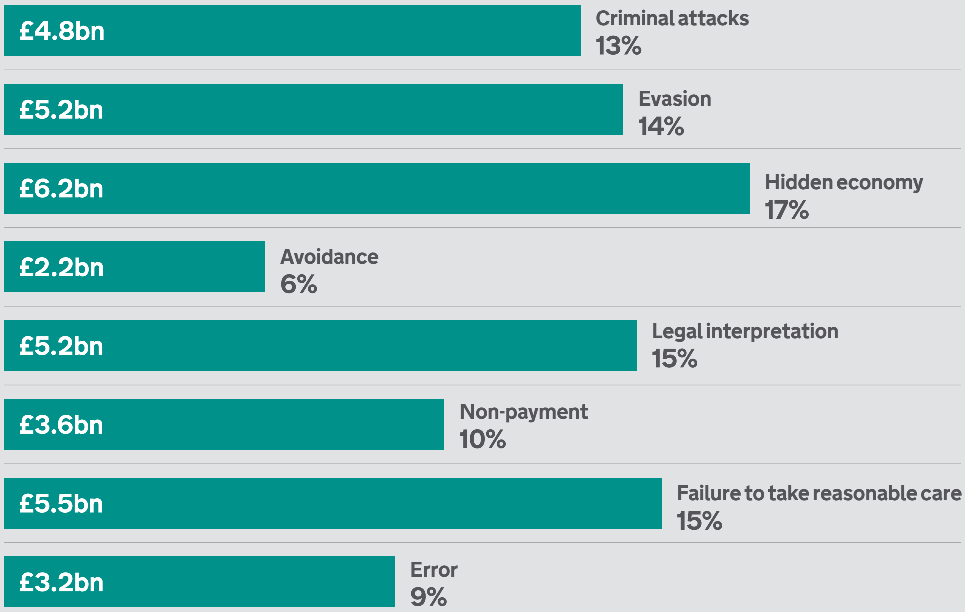


Table 1.5 (at the end of the chapter) shows a time series of tax gap by behaviour. As with the headline figures, the percentage tax gap for behaviours provides a better measure of compliance over time, because it takes account of some of the effects of changes to tax base. It shows that non-compliant customer behaviours over the past five years have been broadly consistent across the behaviours, with some downward movement in criminal attacks, avoidance and non-payment.

We do not have a comparable series for all elements prior to 2009-10. However, reductions in successful criminal attacks on the tax system and avoidance are the main behavioural reasons for the reduction in the tax gap since 2005-06.

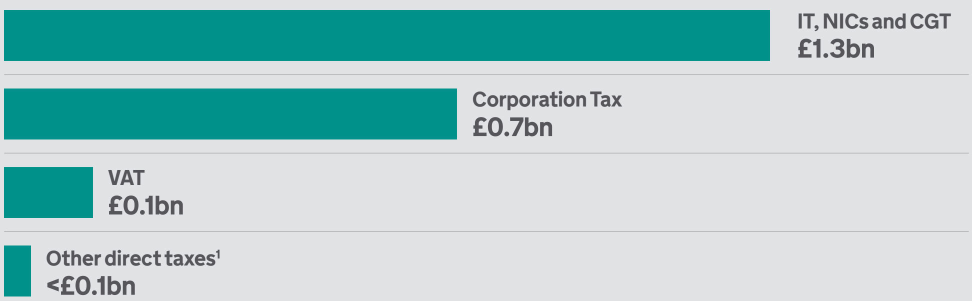
Avoidance

Avoidance is bending the rules of the tax system to gain a tax advantage that Parliament never intended. It often involves contrived, artificial transactions that serve little or no purpose other than to produce a tax advantage. It involves operating within the letter but not the spirit of the law.

The published avoidance tax gap is an annual estimate of the tax lost to the UK due to avoidance schemes. These estimates reflect the laws that were in place at the time and do not include any subsequent changes to the tax law to prevent further use of avoidance schemes.

The estimated avoidance tax gap was £2.2 billion for 2014-15. Figure 1.7 shows how this is split by type of tax. Table 1.6 (at the end of the chapter) shows the breakdown of the avoidance tax gap by type of tax for 2012-13 to 2014-15. The estimate for 2013-14 published last year was £2.7 billion, but has been revised down to £2.4 billion as data sources have improved and more recent data is used.

Figure 1.7 Avoidance tax gap by type of tax, 2014-15 (£ billion)



1 'Other direct taxes' includes stamp duties, Inheritance Tax and Petroleum Revenue Tax.

The definition of avoidance used to produce the tax gap estimates is described in Table 1.7 (at the end of the chapter).

The methodologies used to produce the avoidance tax gap estimates differ according to the type of tax. They are summarised in the relevant chapters and in the 'Methodological annex' published alongside this document.

The methodological annex is available on our website
www.gov.uk/government/statistics/measuring-tax-gaps

Tax gap measurement

Definition

The 'tax gap' is the difference between the amount of tax that should, in theory, be collected by HMRC, against what is actually collected. The 'theoretical tax liability' represents the tax that would be paid if all individuals and companies complied with both the letter of the law and our interpretation of Parliament's intention in setting law (referred to as the spirit of the law). The total theoretical tax liability is calculated as the tax gap plus the amount of tax actually received, from HMRC receipts.

The tax gap estimates only cover the taxes administered by HMRC, so exclude taxes and duties administered elsewhere (council tax, business rates, congestion charge and vehicle excise duty). These estimates also exclude error and fraud in tax credits.

Tax Gap Measurement - the Error and Fraud in Tax Credits publication can be found here:
www.gov.uk/government/statistics/child-and-working-tax-credits-error-and-fraud-statistics-2014-to-2015

Tax gaps are calculated net of compliance yield, that is, they reflect the gap remaining after our compliance efforts. More information on compliance yield is available in HMRC's Annual Report and Accounts. The 'Methodological annex' sets out how compliance yield is reflected in estimation for each component of the tax gap. Information in HMRC's Annual Report and Accounts and Measuring Tax Gap publication are not directly comparable.

The annual report and accounts is available on our website
www.gov.uk/government/collections/hmrcs-annual-report-and-accounts

Measurement methods

VAT and Excise tax gaps are estimated using a 'top-down' approach by comparing consumption expenditure data with tax receipts. Most other components are estimated using a 'bottom-up' approach building up from our own operational data and management information. The way we estimate each tax gap component and the data we use is set out in the relevant chapters, with additional information in the 'Methodological annex'.

The methodological annex is available on our website
www.gov.uk/government/statistics/measuring-tax-gaps

Top-down estimates

Independent, external data on consumption is used to estimate tax base.

This tax base is used to calculate a theoretical value of tax that should be collected.

The actual amount of tax collected is subtracted from this theoretical value to estimate the tax gap.

These estimates are combined to estimate the tax gap

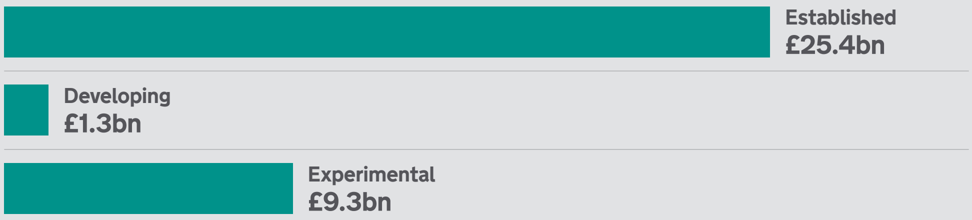
Different methods and data sources are used, depending on best available, to estimate how much tax is lost within each area

HMRC uses internal data and operational knowledge to identify areas of potential tax loss

Bottom-up estimates

Figure 1.8 shows that more than two-thirds of the 2014-15 tax gap is estimated using established methods. Developing methods are used where new data sources are emerging which can be used to estimate tax gaps, but the sources and methods are not yet established and replicable. Experimental methodologies are used to produce illustrative estimates where there is no direct measurement data. Illustrative estimates are calculated using the best available data, simple models and assumptions.

Figure 1.8: Tax gap by type of methodology, 2014-15 (£ billion)



Accuracy and uncertainty

Due to the methodologies used, all tax gap estimates are subject to error, are uncertain and can change from year to year due to improvements in method and data updates. Where possible, confidence intervals and ranges are set out for components of the tax gap in the relevant chapters.

The main sources of error are systematic errors in the assumptions used to calculate the estimates and sampling errors in the data used. Where possible a robust estimate of the error margin is provided. The methodologies used to calculate tax gaps are subject to regular review which could result in revisions to any of the published estimates. Estimates are made on a like-for-like basis each year to enable users to interpret trends, although some smaller tax gaps are not updated each year. Where data sources change over time, every effort has been made to ensure consistency in the series, but this is another potential source of uncertainty.

The methodological annex is available on our website
www.gov.uk/government/statistics/measuring-tax-gaps

Assurance

Our tax gap estimates are produced with the highest levels of quality assurance and adhere to the values, principles and protocols set out in the Code of Practice for Official Statistics. Methodological experts from the Office for National Statistics have peer reviewed the estimation and presentation of tax gaps, and have held a series of workshops with the tax gaps team in 2016 to support our continuous improvement.

The way in which the UK calculates its tax gap was assessed by the International Monetary Fund in August 2013. They concluded that: "HMRC's tax gap analysis program is comprehensive in tax coverage, effectively addresses its multiple dimensions, and work is ongoing to enhance its support to HMRC management. Tax gaps are estimated for most parts of the taxes administered by HMRC. In this regard, HMRC produces one of the most comprehensive studies of tax gap estimates internationally. In general, the models and methodologies used by HMRC to estimate the tax gap across taxes are sound and consistent with the general approaches used by other countries."

Code of Practice for Official Statistics:
www.statisticsauthority.gov.uk/monitoring-and-assessment/code-of-practice

United Kingdom: Technical Assistance Report – Assessment of HMRC's Tax Gap Analysis:
www.imf.org/external/pubs/ft/scr/2013/cr13314.pdf

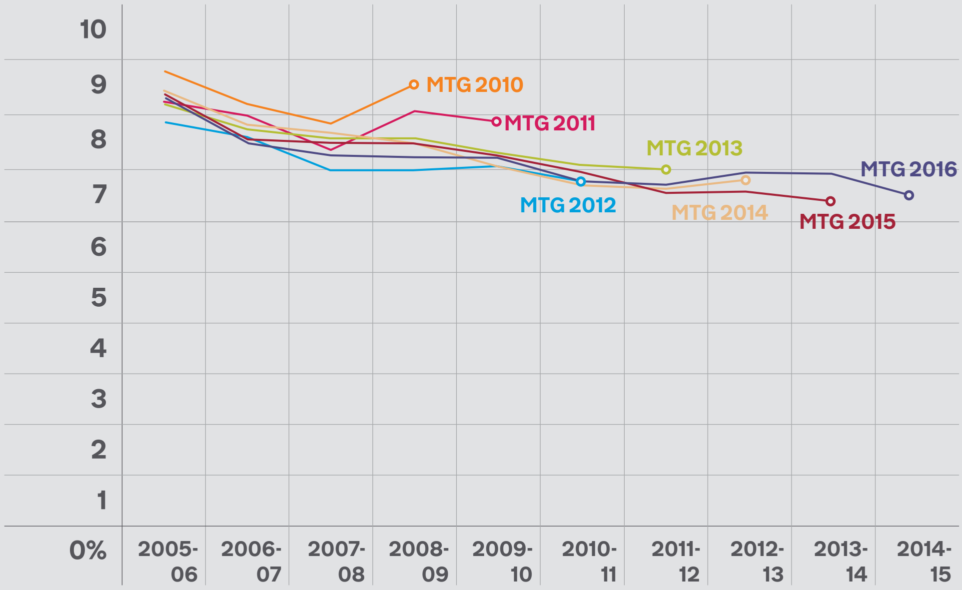
Revisions to tax gap estimates

Many tax gap component estimates have been revised since 'Measuring tax gaps 2015 edition'. This is due to improvements in the way they are calculated, the availability of more up-to-date data and projections based on more recent years. This is in line with the best statistical practice.

Table 1.8 (at the end of the chapter) summarises the amount of revisions for each component of the tax gap and Table 1.9 (at the end of the chapter) summarises the reasons. Further information is available within the relevant chapters.

Figure 1.9 shows the revisions made to the overall tax gap estimates for editions published since 'Measuring tax gaps 2010'. This illustrates the uncertainty around the estimation of tax gaps, which are best used as a long-term indicator.

Figure 1.9: Revisions to the tax gap as a percentage of theoretical tax liabilities compared to previous editions[1]



1 MTG stands for 'Measuring tax gaps'

Table 1.1: Tax gap components

Tax	Type	Component	2014-15 Percentage tax gap[1]	2014-15 Point estimate (£ billion)[2]
Value Added Tax	**Total VAT**		**10.3%**	**12.7**
Excise duties[3]	Tobacco duties	Cigarette duty	7%	0.7
		Hand-rolling tobacco duty	35%	0.7
		Total tobacco duties	**12.8%**	**1.4**
	Alcohol duties	Spirits duty	12%	0.4
		Beer duty	15%	0.7
		Wine duty	3%	0.1
		Total alcohol duties	**10.4%**	**1.2**
	Hydrocarbon oils duties	Total hydrocarbon oils duties	<1%	<0.1
		Other excise duties[3]	5%	0.1
	Total excise duties[3]		**5.3%**	**2.8**
Income tax, National Insurance Contributions, Capital Gains Tax (IT, NICs and CGT)	Self Assessment	Non-business taxpayers	8%	1.0
		Business taxpayers	26%	5.0
		Large partnerships	11%	1.0
		Total Self Assessment	**19.2%**	**7.0**
	PAYE	Small and medium employers	1%	0.9
		Large employers	1%	1.9
		Total PAYE	**1.1%**	**2.8**
	Avoidance	**Total avoidance (IT, NICs and CGT)**	**n/a**	**1.3**
	Hidden economy	PAYE individuals not in Self Assessment	n/a	1.2
		Ghosts	n/a	1.2
		Moonlighters	n/a	2.0
		Total hidden economy (IT, NICs and CGT)	**n/a**	**4.4**
	Total IT, NICs and CGT		**5.2%**	**15.5**
Corporation Tax		Small and medium-sized enterprises	10%	2.2
		Large businesses[4]	6%	1.5
	Total Corporation Tax		**7.6%**	**3.7**
Other taxes	Stamp duties	Stamp Duty Land Tax	1%	0.2
		Stamp Duty Reserve Tax	1%	<0.1
		Total stamp duties	**1.3%**	**0.2**
	Other direct taxes	Inheritance Tax	11%	0.5
		Petroleum Revenue Tax	2%	<0.1
	Other indirect taxes	Landfill Tax	12%	0.1
		Environmental taxes, Insurance Premium Tax	4%	0.5
	Total other taxes		**4.0%**	**1.3**
Total tax gap[5]			**6.5%**	**36**

1 Tax gap as a proportion of theoretical tax liability which is defined as the tax gap plus the amount of tax actually received. Total percentage tax gap estimates are rounded to the nearest 0.1% with individual estimates rounded to the nearest 1%. Percentages cannot be calculated for components where there is no measure of the corresponding liability.
2 The overall tax gap is rounded to the nearest £1 billion. Other estimates are rounded to the nearest £100 million.
3 All excise tax gap point estimates are for duty only. Percentage tax gaps for total tobacco, total alcohol, total hydrocarbon oils and other excise are also duty only. Percentage tax gaps for cigarette, hand-rolling tobacco, spirits, beer and wine are for combined duty and VAT.
4 The Corporation Tax gap estimate for large businesses is derived from two methodologies. An established methodology exists for businesses managed by our Large Business Service and an experimental methodology is used for businesses managed by HMRC's Large and Complex unit.
5 We will be looking to incorporate emerging data sources as a result of offshore disclosure facilities and related work.

Developing methodology.

Experimental methodology, illustrative indicators for gaps with no direct measure.

Table 1.2: Percentage tax gap by type of tax

Tax	Type	2005-06	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15
			Percentage tax gap[1]					
Value Added Tax	Total VAT	14.5%	12.2%	10.6%	11.3%	11.8%	11.4%	10.3%
Excise duties	Tobacco duties	n/a	17.0%	13.3%	12.8%	14.9%	16.6%	12.8%
	Alcohol duties	n/a	7.6%	11.4%	7.9%	5.5%	8.2%	10.4%
	Hydrocarbon oils duties	n/a	2.7%	1.4%	<1%	<1%	<1%	<1%
	Other excise duties	n/a	6.2%	6.2%	4.9%	4.4%	5.1%	5.1%
	Total excise duties	8.0%	6.9%	6.1%	5.0%	4.8%	5.7%	5.3%
Income tax, National Insurance Contributions, Capital Gains Tax (IT, NICs and CGT)[2]	Self Assessment	20.7%	17.2%	17.3%	16.8%	19.2%	19.8%	19.2%
	PAYE	1.5%	1.5%	1.6%	1.5%	1.5%	1.6%	1.1%
	Avoidance	n/a	n/a	n/a	n/a	n/a	n/a	n/a
	Hidden economy	n/a	n/a	n/a	n/a	n/a	n/a	n/a
	Total IT, NICs and CGT	5.6%	5.2%	5.4%	5.1%	5.4%	5.6%	5.2%
Corporation Tax	Small and medium-sized enterprises	17.4%	11.9%	10.3%	8.7%	10.2%	9.2%	9.5%
	Large businesses	11.9%	11.1%	9.0%	6.1%	5.4%	5.6%	5.8%
	Total Corporation Tax	13.5%	11.4%	9.5%	7.1%	7.4%	7.2%	7.6%
Other direct and indirect taxes	Stamp duties	2.5%	2.4%	2.5%	2.6%	1.8%	1.2%	1.3%
	Other taxes[3]	5.3%	6.6%	5.5%	5.3%	5.5%	5.7%	6.3%
	Total other direct and indirect taxes	4.0%	4.9%	4.3%	4.3%	4.2%	3.8%	4.0%
Total tax gap		8.3%	7.2%	6.8%	6.6%	6.9%	6.9%	6.5%

1 Estimates are rounded to nearest 0.1%.
2 Percentage tax gap estimates for avoidance and the hidden economy are not shown as tax receipts cannot be calculated.
3 'Other taxes' includes Inheritance Tax, Petroleum Revenue Tax, environmental taxes (including Landfill Tax) and Insurance Premium Tax.

A full time series for tables is available on our website
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Table 1.3: Tax gap (cash figure) by type of tax

Tax	Type					Point estimates (£ billion)[1]		
		2005-06	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15
Value Added Tax	**Total VAT**	**12.3**	**9.9**	**10.1**	**12.5**	**13.5**	**13.5**	**12.7**
Excise duties	Tobacco duties	2.2	1.8	1.4	1.4	1.7	1.9	1.4
	Alcohol duties	0.5	0.7	1.2	0.8	0.6	0.9	1.2
	Hydrocarbon oils duties	0.7	0.7	0.4	0.2	<0.1	<0.1	<0.1
	Other excise duties	0.1	0.1	0.1	0.1	0.1	0.1	0.1
	Total excise duties	**3.5**	**3.4**	**3.1**	**2.5**	**2.4**	**3.0**	**2.8**
Income tax, National Insurance Contributions, Capital Gains Tax (IT, NICs and CGT)[2]	Self Assessment	5.5	5.0	5.4	5.0	5.9	6.2	7.0
	PAYE	3.1	3.2	3.7	3.6	3.5	4.0	2.8
	Avoidance	n/a	n/a	n/a	n/a	1.2	1.4	1.3
	Hidden economy	n/a	n/a	n/a	n/a	4.3	4.3	4.4
	Total IT, NICs and CGT	**13.1**	**13.4**	**14.4**	**13.9**	**14.8**	**15.9**	**15.5**
Corporation Tax	Small and medium-sized enterprises	2.6	1.9	1.7	1.7	1.9	1.8	2.2
	Large businesses	4.1	2.8	2.8	1.8	1.5	1.4	1.5
	Total Corporation Tax	**6.6**	**4.7**	**4.5**	**3.4**	**3.3**	**3.3**	**3.7**
Other direct and indirect taxes	Stamp duties	0.3	0.2	0.2	0.2	0.2	0.2	0.2
	Other taxes[3]	0.7	0.8	0.8	0.9	0.9	1.0	1.1
	Total other direct and indirect taxes	**1.0**	**1.0**	**1.0**	**1.1**	**1.1**	**1.1**	**1.3**
Total tax gap		**37**	**32**	**33**	**33**	**35**	**37**	**36**
Total theoretical tax liabilities		**439**	**447**	**487**	**506**	**509**	**530**	**551**
Total percentage tax gap (%)		**8.3%**	**7.2%**	**6.8%**	**6.6%**	**6.9%**	**6.9%**	**6.5%**

1 The overall tax gap is rounded to the nearest £1 billion. Other estimates are rounded to the nearest £100 million. Figures may not appear to sum due to rounding.
2 Tax gap estimates for avoidance and the hidden economy are not shown prior to 2012-13.
3 'Other taxes' includes Inheritance Tax, Petroleum Revenue Tax, environmental taxes (including Landfill Tax) and Insurance Premium Tax.

Estimates for these years are projections and will be revised when operational data becomes available.

A full time series for tables is available on our website
www.gov.uk/government/statistics/measuring-tax-gaps-tables

Table 1.4: Tax gap time series by customer group, percentage of total theoretical tax liabilities

Customer group	Percentage tax gap					
	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15
Small and medium-sized enterprises	3.4%	3.3%	3.3%	3.5%	3.5%	3.3%
Large business	1.9%	1.8%	1.8%	1.9%	1.8%	1.7%
Criminals	1.3%	1.1%	1.0%	0.9%	1.0%	0.9%
Individuals	0.6%	0.6%	0.6%	0.6%	0.6%	0.6%
Total	**7.2%**	**6.8%**	**6.6%**	**6.9%**	**6.9%**	**6.5%**

Table 1.5: Tax gap time series by behaviour, percentage of total theoretical tax liabilities and £ billion

Behaviour	Percentage tax gap											
	2009-10		2010-11		2011-12		2012-13		2013-14		2014-15	
	%	£bn	%	£bn	%	£bn	%	£bn	%	£bn	%	£bn
Criminal attacks	1.3%	5.9	1.1%	5.6	1.0%	5.0	0.9%	4.7	1.0%	5.5	0.9%	4.8
Evasion	0.8%	3.8	0.9%	4.3	0.9%	4.4	1.0%	4.9	1.0%	5.1	0.9%	5.2
Hidden economy	1.1%	4.8	1.1%	5.2	1.1%	5.7	1.2%	6.3	1.2%	6.4	1.1%	6.2
Avoidance	0.7%	2.9	0.7%	3.5	0.5%	2.5	0.4%	2.2	0.5%	2.4	0.4%	2.2
Legal interpretation	1.0%	4.5	0.9%	4.4	0.9%	4.7	1.0%	5.1	1.0%	5.1	1.0%	5.2
Non-payment	1.0%	4.5	0.8%	3.8	0.9%	4.5	0.8%	4.0	0.8%	4.1	0.7%	3.6
Failure to take reasonable care	0.8%	3.7	0.8%	4.0	0.8%	4.0	0.9%	4.8	1.0%	5.1	1.0%	5.5
Error	0.5%	2.3	0.5%	2.4	0.5%	2.7	0.6%	3.1	0.6%	3.1	0.6%	3.2
Total	**7.2%**	**32**	**6.8%**	**33**	**6.6%**	**33**	**6.9%**	**35**	**6.9%**	**37**	**6.5%**	**36**

Table 1.6: Avoidance tax gap by type of tax (£ billion)

Type of tax	2012-13	2013-14	2014-15
IT, NICs and CGT	1.2	1.4	1.3
Corporation Tax	0.8	0.8	0.7
VAT	0.1	0.2	0.1
Other direct taxes[1]	0.1	0.1	<0.1
Total[2]	**2.2**	**2.4**	**2.2**

1 'Other direct taxes' includes stamp duties, Inheritance Tax and Petroleum Revenue Tax.
2 Figures may not appear to sum due to rounding.

Table 1.7: Description of behaviours

Behaviour	Description
Criminal attacks	Organised criminal gangs undertake co-ordinated and systematic attacks on the tax system. This includes smuggling goods such as alcohol or tobacco, VAT repayment fraud and VAT Missing Trader Intra-Community (MTIC) fraud.
Evasion	Tax evasion is illegal activity, where registered individuals or businesses deliberately omit, conceal or misrepresent information in order to reduce their tax liabilities.
Hidden economy	Undeclared economic activity that involves what we call 'ghosts' - whose entire income is unknown to HMRC, and 'moonlighters' - who are known to us in relation to part of their income, but have other sources of income that HMRC does not know about. There is a difference between the hidden economy and tax evasion: • Hidden economy - where an entire source of income is not declared. • Tax evasion - where a declared net source of income is deliberately understated.
Avoidance	Avoidance is exploiting the tax rules to gain a tax advantage that Parliament never intended. It often involves contrived, artificial transactions that serve little or no commercial purpose other than to produce a tax advantage. It involves operating within the letter but not the spirit of the law. It does not include international tax arrangements that cannot be challenged under the UK law, including some forms of base erosion and profit shifting (BEPS). These are being addressed multilaterally through the Organisation for Economic Co-operation and Development (OECD). The OECD defines BEPS as "tax planning strategies that exploit gaps and mismatches in tax rules to make profits disappear for tax purposes or to shift profits to locations where there is little or no real activity but the taxes are low resulting in little or no overall corporate tax being paid". Tax avoidance is not the same as tax planning. Tax planning involves using tax reliefs for the purpose for which they were intended. For example, claiming tax relief on capital investment, saving in a tax-exempt ISA or saving for retirement by making contributions to a pension scheme are all forms of tax planning.
Legal interpretation	Legal interpretation losses arise where the customer's and HMRC's interpretation of the law and how it applies to the facts in a particular case, result in a different tax outcome. Examples include the correct categorisation of an asset for allowances, the allocation of profits within a group of companies, or VAT liability of a particular supply.
Non-payment	For direct taxes, non-payment refers to tax debts that are written off by HMRC and result in a permanent loss of tax - mainly as a result of insolvency. It does not include debts that are eventually paid. VAT non-payment differs as it is based on the difference between new debts arising and debt payments (see Chapter 2 of the main publication).
Failure to take reasonable care	Failure to take reasonable care results from a customer's carelessness and/or negligence in adequately recording their transactions and/or in preparing their tax returns. Judgments of 'reasonable care' should consider and reflect a customer's knowledge, abilities and circumstances.
Error	Errors result from mistakes made in preparing tax calculations, completing returns or in supplying other relevant information, despite the customer taking reasonable care.

Table 1.8: Revisions to estimates since 2015 edition of 'Measuring tax gaps'

Tax	Type	Component	2005-06	2009-10	2010-11	2011-12	2012-13	2013-14
			Point estimates (£ billion)[1,2]					
Value Added Tax	**Total VAT**		**-0.2**	**-0.4**	**-0.6**	**-0.5**	**neg**	**+0.4**
Excise duties	Tobacco duties	Cigarette duty	-	+0.1	+0.1	+0.1	+0.1	+0.2
		Hand-rolling tobacco duty	+0.1	-	-	-	-	-
		Total tobacco duties	**+0.1**	**+0.1**	**+0.1**	**+0.1**	**+0.1**	**+0.2**
	Alcohol duties	Spirits duty	-	-	-	-	-	neg
		Beer duty	-	-	-	-	-	neg
		Wine duty	-	-	-	-	-	-
		Total alcohol duties	**-**	**-**	**-**	**-**	**-**	**+0.1**
	Hydrocarbon oils duties	Great Britain diesel duty	-	-	-	-	-	-
		Great Britain petrol duty	-	-	-	-	-	-
		Northern Ireland diesel duty	neg	neg	neg	neg	-0.1	neg
		Northern Ireland petrol duty	-	-	-	-	-	-
		Total hydrocarbon oils duties	**neg**	**neg**	**neg**	**neg**	**-0.1**	**neg**
		Other excise duties	neg	neg	neg	neg	neg	neg
	Total excise duties		**+0.1**	**+0.1**	**+0.1**	**+0.1**	**+0.1**	**+0.3**
Income tax, National Insurance Contributions, Capital Gains Tax (IT, NICs and CGT)	Self Assessment	Non-business taxpayers	-	-	+0.4	+0.2	+0.3	+0.4
		Business taxpayers	-	-	-0.1	+0.2	+0.9	+1.1
		Large partnerships	-	-	+0.1	+0.1	+0.3	+0.2
		Total Self Assessment	**-**	**-**	**+0.3**	**+0.6**	**+1.5**	**+1.6**
	PAYE	Small and medium employers	neg	neg	neg	+0.1	+0.1	+0.2
		Large employers	-	neg	neg	-	neg	neg
		Total PAYE	**neg**	**neg**	**neg**	**+0.1**	**+0.1**	**+0.2**
	Avoidance	**Total avoidance (IT, NICs and CGT)**	**n/a**	**n/a**	**n/a**	**n/a**	**-0.2**	**neg**
	Hidden economy	PAYE individuals not in Self Assessment	n/a	n/a	n/a	n/a	+0.1	+0.1
		Ghosts	n/a	n/a	n/a	n/a	neg	neg
		Moonlighters	n/a	n/a	n/a	n/a	-	+0.1
		Total hidden economy (IT, NICs and CGT)	**n/a**	**n/a**	**n/a**	**n/a**	**+0.1**	**+0.1**
	Total IT, NICs and CGT		**neg**	**-0.1**	**-0.3**	**+0.1**	**+1.4**	**+1.9**
Corporation Tax		Small and medium-sized enterprises	neg	neg	+0.1	+0.4	+0.4	+0.5
		Large and complex businesses	-	+0.1	+0.1	+0.2	-0.1	-0.1
		Businesses managed by our Large Business Service	-	neg	neg	-0.1	-0.1	-0.1
	Total Corporation Tax		**neg**	**+0.2**	**+0.2**	**+0.5**	**+0.2**	**+0.3**
Other taxes	Stamp duties	Stamp Duty Land Tax	-	-	-	-	neg	neg
		Stamp Duty Reserve Tax	-	-	neg	neg	neg	neg
		Total stamp duties	**-**	**-**	**neg**	**neg**	**neg**	**neg**
	Other direct taxes	Inheritance Tax	-	-	-	-	neg	neg
		Petroleum Revenue Tax	-	-	-	-	-	-
	Other indirect taxes	Landfill Tax, Other environmental taxes and Insurance Premium Tax	neg	neg	neg	neg	neg	+0.1
	Total other taxes		**neg**	**neg**	**neg**	**neg**	**neg**	**neg**
Total tax gap			**-0.2**	**-0.2**	**-0.6**	**+0.2**	**+1.7**	**+2.8**

1 neg denotes revisions less than £50 million.
2 n/a denotes that comparable estimates for earlier years are not available and '-' means there is no change.

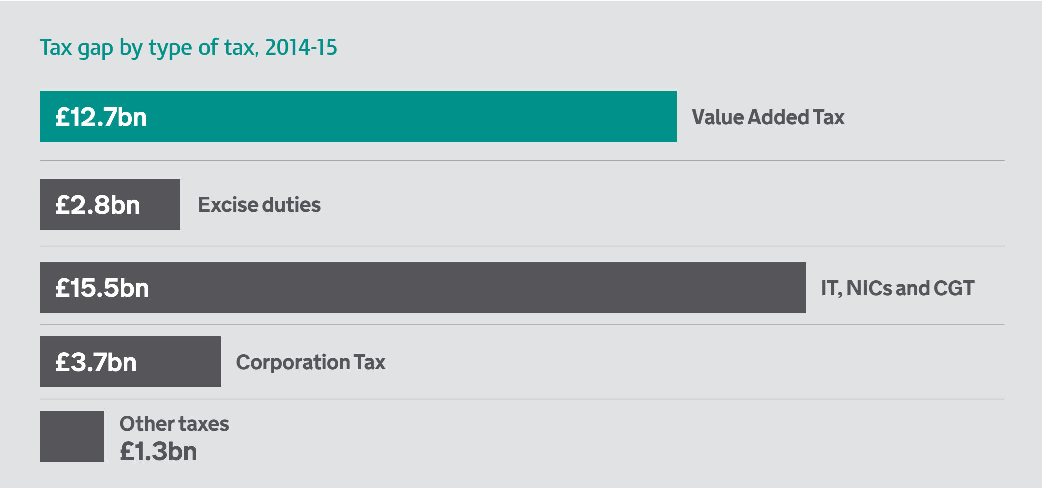
A full time series for tables is available on our website
www.gov.uk/government/statistics/measuring-tax-gaps-tables

Table 1.9: Description of revisions since last edition

Tax gap component	Revisions
Value Added Tax	Revisions have been made to the VAT gap estimates since last year's publication 'Measuring tax gaps 2015 edition'. This has resulted in a decrease in the level of the VAT gap for all years except 2012-13, which had a negligible increase, and 2013-14 which had an increase of £400 million (see Figure 2.5 in Chapter 2). These revisions are a result of incorporating new and revised independent data from the Office for National Statistics and methodological improvements. For more detail, see the 'Revisions' section in Chapter 2.
Excise duties and other indirect taxes	
Alcohol	New data for final quarter alcohol consumption in 2013-14 has become available. The alcohol tax gap figures for 2013-14 have been revised as a result. Final quarter consumption for 2014-15 are forecasted and estimates should be considered provisional. Due to changes in underlying data sources used to estimate commercial wine consumption the 2013-14 and 2014-15 tax gaps were not possible to estimate directly. An illustrative example has been provided for 2013-14 and 2014-15 using the average of the 2011-12 and 2012-13 estimates.
Tobacco	Updated information became available on the number of people who falsely deny whether they smoke, which we have used to update the tax gap series.
Income tax, National Insurance Contributions, Capitals Gains Tax	
Self Assessment (SA)	We have made substantial revisions to SA data due to an improved casework management system being used to record compliance yield, better data capture and replacing projections with actual data. 2010-11 and 2011-12 are revised due to: • an improved casework management system being used to record compliance yield for random enquiry programme cases, and better data capture • long-running cases relating to these years that were previously open and had to have their outcomes forecast, have now been settled • data on small partnerships has been smoothed from 2010-11, due to the sampling approach for this strata. 2012-13 is revised as it is now using actual data rather than being projected from the 2011-12 estimate. 2013-14 is revised as it is now projected from the 2012-13 estimate rather than from the 2011-12 estimate.
PAYE small employers	2011-12 to 2013-14 are revised due to an improved casework management system being used to record compliance yield, and better data capture. Additionally in 2013-14 there was an improved method for identifying PAYE non-payments.
PAYE large employers	No revisions
Avoidance	2012-13 has been revised slightly to reflect more recent internal data and improved data to annualise risks.
Hidden economy	Hidden Economy tax gap estimates for previous years are updated to reflect the latest available data, but remain illustrative.

Tax gap component	Revisions
Corporation Tax	
Businesses managed by our Large Business Service (LBS)	2008-09 and 2011-12 have been revised with data from the closure of more risks, better estimates of tax under consideration and a small increase in compliance yield estimates. 2012-13 has been revised as it is now estimated from case management system data rather than projected from 2011-12. 2013-14 has been revised as it is now projected from 2012-13 data instead of 2011-12 data.
Large and complex businesses (L&C)	2009-10 to 2012-13 have been revised because they are estimated using updated tax under consideration estimate for businesses managed by our Large Business Service. 2013-14 has been revised as it is now projected from 2012-13 data instead of 2011-12 data.
Small and medium-sized enterprises	2010-11 to 2012-13 are revised due to an improved casework management system being used to record compliance yield, and better data capture. Additionally, long running cases relating to 2011-12 that were previously open and had to have their outcomes forecast have now been settled. 2013-14 is revised as it now uses actual data rather than being projected.
Other direct and indirect taxes	
Landfill Tax, other environmental taxes and Insurance Premium Tax	A new methodology has been developed to estimate the Landfill Tax gap, which has led to revisions to this combined category. For more information see Chapter 6: Other taxes

2. VAT



Key findings

The VAT gap is estimated to be £12.7 billion in 2014-15. This equates to 10.3% of the estimated net VAT total theoretical liability (in other words, the net VAT total that should, in theory, be paid).

There is a downward trend in the VAT gap, from 14.5% in 2005-06 to 10.3% in 2014-15.

The VAT gap estimates are prone to change, from both new and revised independent data and methodological improvements. In this publication, there are new and revised independent data from the Office for National Statistics National Accounts Blue Book 2015 and Consumer Trends up to and including 2016 quarter 1 (consistent with Blue Book 2016). This has resulted in a decrease in the level of the VAT gap for all years except 2012-13, which had a negligible increase, and 2013-14 which had an increase of £400 million (see Figure 2.5).

The Missing Trader Intra-Community (MTIC) fraud estimate for 2014-15 has remained within the same range as 2013-14, of between £0.5 billion and £1.0 billion (see the 'Methodology and data issues' section for the definition of MTIC).

VAT debt is estimated at £1.5 billion in 2014-15. This is the difference between new debt and paid and adjusted debt (see Figure 2.2).

Around 70% of the VAT total theoretical liability in 2014-15 was from household consumption, with the remaining proportion from consumption by businesses making exempt supplies, and from the government and housing sectors (see Figure 2.3).

Around half of household expenditure that is liable to VAT comes from restaurants and hotels, transport and recreation and culture (see Figure 2.4). This is consistent with estimates in previous years.

Results and tables

Table 2.1 shows the estimated net VAT total theoretical liability (VTTL), net VAT receipts and the estimated VAT gap for years 2005-06 to 2014-15.

The VAT gap shows a downward trend from 2005-06 to 2014-15, falling from 14.5% in 2005-06 to 10.3% in 2014-15. Over this period, the standard rate of VAT has fluctuated between 15% and 20%. For this reason, the VAT gap expressed as a percentage of VTTL provides a like-for-like comparison and takes account of the impact of any rate change.

The VAT gap decreased between 2013-14 and 2014-15 from 11.4% to 10.3%, which equates to a decrease from £13.5 billion to £12.7 billion.

Table 2.1: Estimated VAT gap (£ billion)[1]

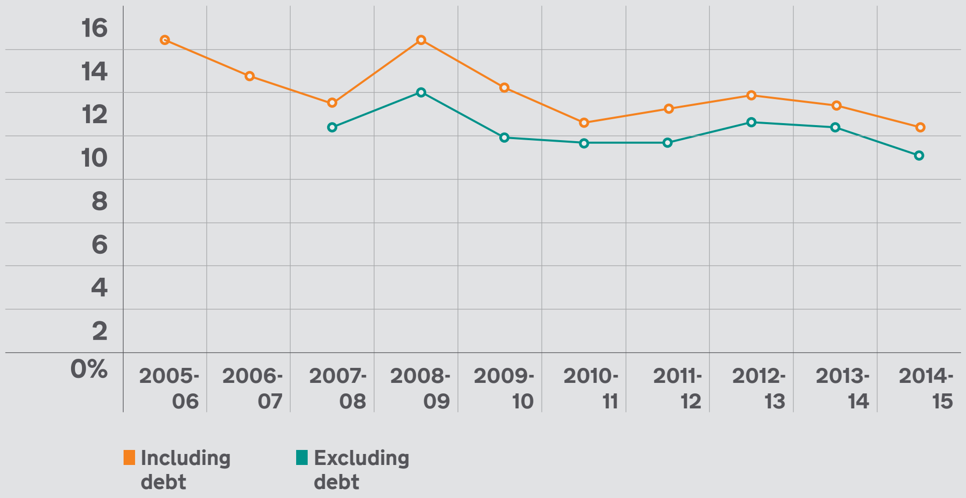
	2005-06	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15
Net VTTL	85.3	81.5	95.5	111.0	114.3	118.2	124.1
Net VAT receipts[2]	73.0	71.6	85.4	98.4	100.7	104.8	111.4
VAT gap (point estimate)	**12.3**	**9.9**	**10.1**	**12.5**	**13.5**	**13.5**	**12.7**
of which MTIC fraud	*2.5-3.5*	*1.0-1.5*	*0.5-1.0*	*0.5-1.0*	*0.5-1.0*	*0.5-1.0*	*0.5-1.0*
of which debt	*n/a*	*1.8*	*0.9*	*1.8*	*1.3*	*1.2*	*1.5*
VAT gap % [3]	14.5%	12.2%	10.6%	11.3%	11.8%	11.4%	10.3%

1 The amounts are rounded to the nearest £0.1 billion.
2 Net VAT receipts are expressed net of payments and repayments.
3 The VAT gap as a percentage of VTTL has been rounded to the nearest 0.1%.

A full time series for tables is available on our website
www.gov.uk/government/statistics/measuring-tax-gaps-tables

Figure 2.1 shows a time series of the VAT gap over the period 2005-06 to 2014-15. The VAT gap excluding debt remained broadly stable from 2009-10 onwards, at around 10% of VTTL. Due to data quality issues, the debt contribution can only be measured from 2007-08.

Figure 2.1: Time series of the VAT gap, including and excluding debt



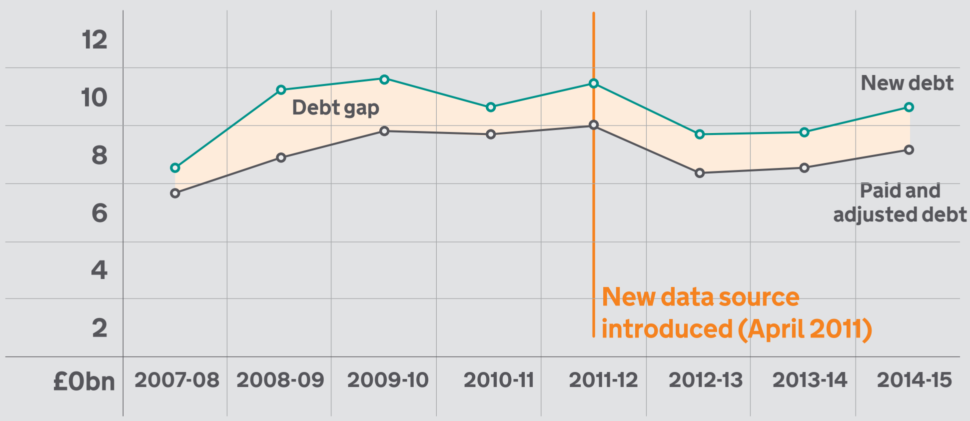
Missing Trader Intra-Community (MTIC) fraud

MTIC fraud has declined from a peak in 2005-06, where it was between £2.5 billion and £3.5 billion and has stayed broadly stable since 2010-11. MTIC fraud is between £0.5 billion and £1.0 billion in 2014-15.

VAT debt

The contribution of debt to the VAT gap is defined as the amount of VAT declared by businesses, but not paid to HMRC (see 'Methodology and data issues' section for the definition of VAT debt). The VAT gap shows a peak at 14.5% in 2008-09. This is partly because the recession caused an increase in VAT debt from £0.9 billion in 2007-08 to £2.4 billion in 2008-09. The level of debt was £1.5 billion in 2014-15.

Figure 2.2: Time series of VAT debt

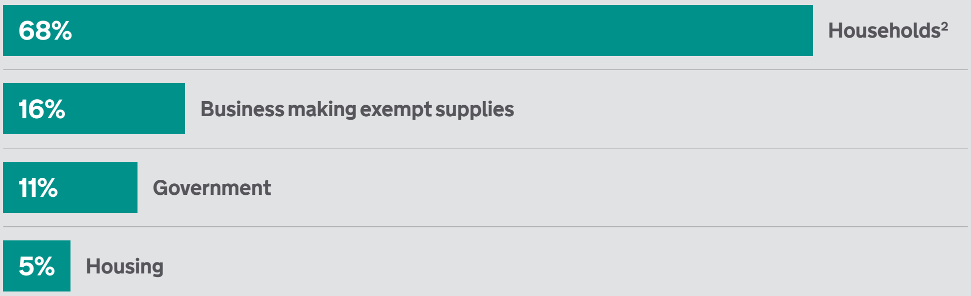


VAT avoidance is another component of the VAT gap. Avoidance is exploiting the tax rules to gain a tax advantage that Parliament never intended (see Table 1.7). VAT avoidance is estimated to be £0.1 billion in 2014-15.

Sector analysis

Figure 2.3 shows each sector's contribution to the VTTL in percentage terms, with household consumption contributing about 70% in 2014-15. This is consistent with VTTL estimates in previous years.

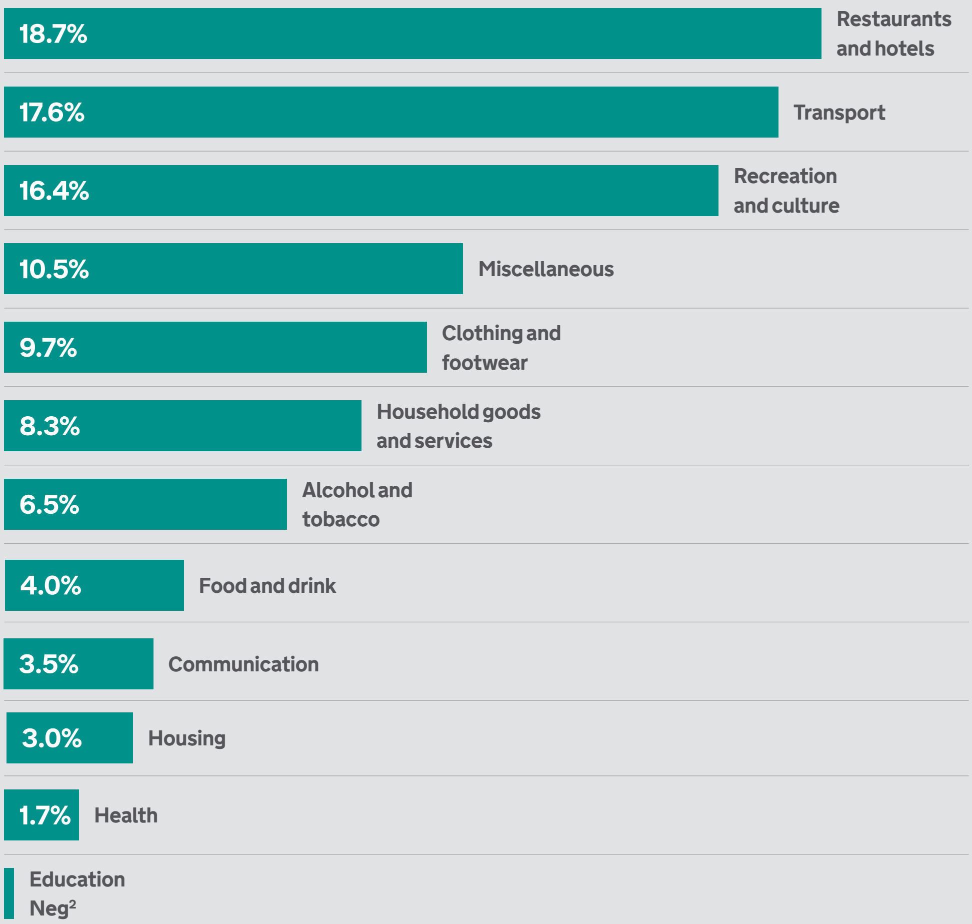
Figure 2.3: Components of the VTTL in 2014-15[1]



1 Numbers may not sum due to rounding.
2 The household component also includes estimates of expenditure by non-profit institutions serving households.

Each estimated household expenditure component for 2014-15 is illustrated in Figure 2.4. Restaurants and hotels, transport and recreation and culture are the largest elements of household consumption. Again, this is consistent with the estimates in previous years.

Figure 2.4: Composition of VAT-able expenditure for the household sector in 2014-15[1]



1 Numbers may not sum due to rounding.

2 Neg denotes negligible; an estimate of less than 0.05%.

Methodology and data issues

Methodology

The VAT gap is measured by comparing the net VAT total theoretical liability (VTTL) with actual VAT receipts (this is comparing the amount of VAT HMRC expect to receive in the UK and the VAT HMRC actually receives). The VAT gap methodology uses a 'top-down' approach which involves:

1 Assessing the total amount of expenditure in the UK economy

Gathering data detailing the total amount of expenditure in the economy that is subject to VAT, primarily from the Office for National Statistics (ONS). This is built up from five expenditure components: household consumption, capital expenditure on housing, government expenditure, non-profit institutions serving households expenditure and expenditure of businesses making exempt supplies (see Figure 2.3).

2 Estimating the VAT liability on total expenditure

Applying the rate of VAT (zero, reduced or standard rate) on that expenditure based on commodity breakdowns of the expenditure data to derive the gross VTTL.

3 Deducting any legitimate reductions

Deducting any legitimate refunds occurring through schemes and reliefs to calculate the net VTTL.

4 Subtracting actual VAT receipts

Subtracting actual VAT receipts from the net VTTL. Comparing the net VTTL for the calendar year to VAT receipts for the corresponding financial year. This assumes a three-month lag between the economic activity and payment of the associated VAT to HMRC.

5 Calculating the VAT gap

Calculating the residual element - the VAT gap - which is assumed to be the total VAT gap including fraud, debt and other losses.

Data

This publication includes both new data and data revisions from the Office for National Statistics National Accounts Blue Book 2015 and Consumer Trends up to and including 2016 quarter 1 (consistent with Blue Book 2016).

Due to the timing of the Blue Book 2016 publication, which was published in July 2016, it has not been possible to take on data for 2014 for the housing, government and businesses making exempt supplies in the VAT gap model (around 30% of the VTTL as shown in Figure 2.3). Therefore, these sectors VTTLs are forecast for 2014-15 using the Office for Budget Responsibility's determinants and will be updated once HMRC incorporates the new outturn data into these estimates.

VAT gap estimates are included in the total tax gap as part of the 'Measuring tax gaps' publication. These estimates will be subject to further revision as more data become available and methodological improvements are implemented.

The VAT gap preliminary estimate for 2015-16 is expected to be published on the day of the Chancellor's Autumn Statement and a second estimate is expected to be published at next year's Budget. The exact release date will be available on the HMRC website (schedule of updates).

Missing Trader Intra-Community (MTIC) fraud

MTIC fraud is an organised criminal attack on the European Union's VAT system involving fraudulent traders acquiring goods or services VAT free from EU member states. They charge VAT on their onward sale and go 'missing' to avoid paying the VAT charged to the relevant tax authorities. One form of the fraud - known as carousel fraud - involves a series of contrived transactions within and beyond the EU, with the aim of creating large unpaid VAT liabilities and in some cases invalid VAT repayment claims.

The method used to estimate MTIC fraud was reviewed and updated for estimates from 2011-12 with changes that better reflect the way MTIC fraud is carried out. It is not possible to calculate previous years using this updated methodology, as the data is not available before this point. This means a break in the time series occurs between 2010-11 and 2011-12, with estimates up to and including 2010-11 calculated using the previous methodology. The estimates for the years before 2011-12 will not be revised.

We do not reveal how we calculate MTIC fraud estimates, for operational reasons.

VAT debt

For VAT, debt is defined as new debts arising in the financial year deducting debt paid and debt adjustments. This differs to direct taxes, where non-payment is equated to debt written off. Debt adjustments refer to the difference between the amount initially declared by the trader and the finalised amount due.

The debt contribution to the VAT gap is estimated using our own data, with debt adjustments made to exclude MTIC debt and to reflect the deferral of payments under the 'Time to Pay' arrangements. Due to data quality issues, the debt contribution can only be measured from 2007-08.

This methodology does not relate to the stock of debt or debt written off. This means that estimates shown will differ from the VAT debt balance contained in HMRC's Annual Report and Accounts.

Avoidance

The VAT avoidance tax gap is estimated using HMRC's risk register data of avoidance schemes relating to VAT. The methodology remains unchanged from 'Measuring tax gaps 2015 edition'. No change was made to the assumption on the length of time that VAT avoidance schemes operate.

Revisions

Revisions have been made to the VAT gap estimates since last year's publication 'Measuring tax gaps 2015 edition'. This has resulted in a decrease in the level of the VAT gap for all years except 2012-13, which had a negligible increase, and 2013-14 which had an increase of £400 million (see Figure 2.5).

These revisions are a result of incorporating new and revised independent data from the Office for National Statistics (ONS) and methodological improvements. The main reasons are summarised as follows:

a) Taking on data from 'Blue Book 2015' (October 2015), the changes are outlined in a series of articles published by the ONS:

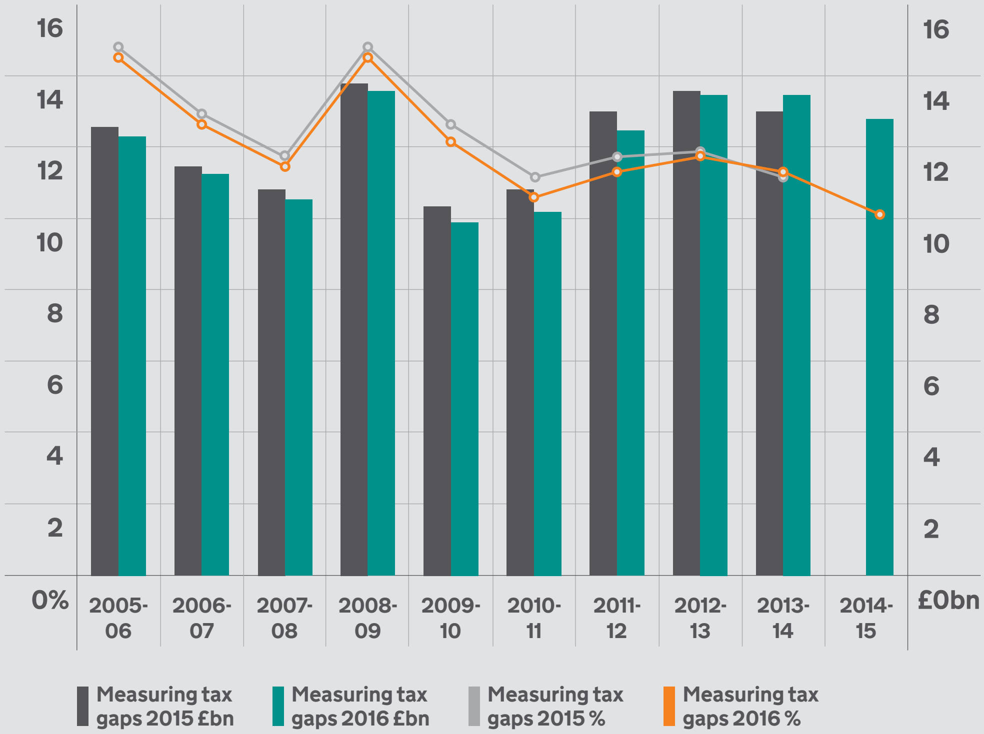
The United Kingdom National Accounts, The Blue Book: 2015 Edition is available at www.ons.gov.uk/economy/grossdomesticproductgdp/compendium/unitedkingdomnationalaccountsthebluebook/2015-10-30

b) Taking on data from 'ONS Consumer Trends' data up to and including 2016 quarter 1 (consistent with Blue Book 2016), which is used to calculate the household sector.

c) Making improvements to the VTTL model to incorporate new data and methodology changes.

d) Taking on the latest forecast from the Office for Budget Responsibility, which are used to forecast parts of the VAT gap where data is unavailable.

Figure 2.5: Revisions to the VAT gap estimates compared to the previous edition



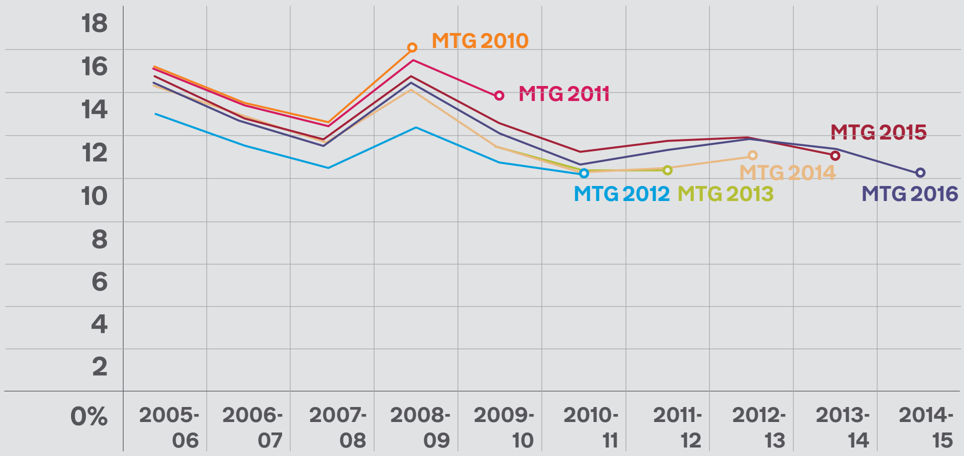
As part of the regular cycle of the VAT gap publications, HMRC continues to review the methodologies it uses to estimate the VAT gap to ensure these use best available data and assumptions, and are in line with current VAT policies.

Sensitivity of the VAT gap

The VAT gap estimates are prone to change from both new and revised data and methodological improvements. Plus, the VAT gap is basically derived from two very large numbers (the VTTL and the VAT receipts) so any change to either of these numbers will have a large impact on the VAT gap estimates. It is for this reason that the trend in the time series is considered a better indicator of the VAT gap rather than its year-on-year changes.

Figure 2.6 shows how the VAT gap time series has changed in each of the 'Measuring tax gaps' publications. Although the VAT gap per cent fluctuates for example, 2005-06 varies from 13.1% to 15.4%, the trend is unchanged.

Figure 2.6 Revisions to the VAT gap as a percentage of theoretical tax liabilities compared to previous editions[1]



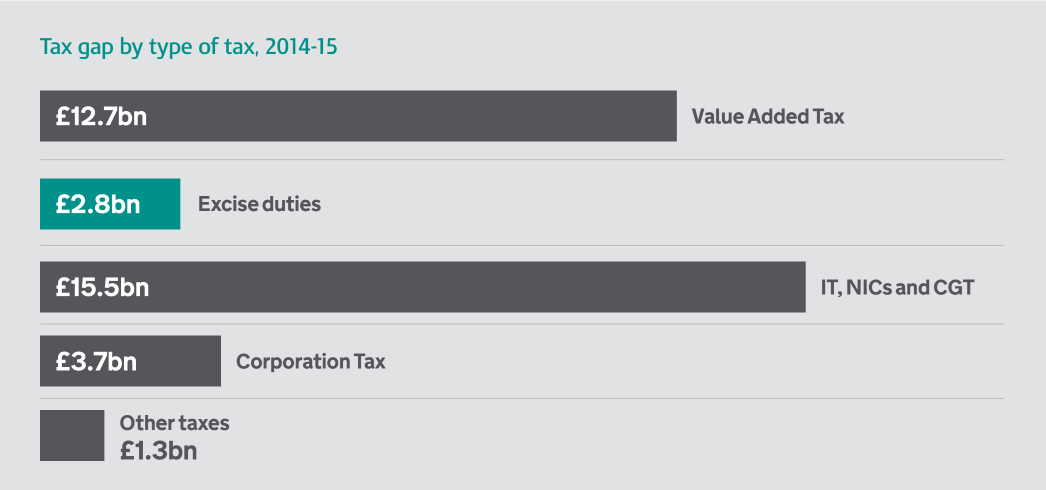
1 MTG stands for 'Measuring tax gaps'

Revisions policy for VAT gap estimates

HMRC only publish a revised historical VAT gap series once a year, within the 'Measuring tax gaps' publication, incorporating both new and revised data and methodological improvements together.

The preliminary and second estimate of the VAT gap will only include revisions for new data and required methodology improvements to ensure the correct treatment of this new data. For example, the estimates may be updated with the latest Consumer Trends or Blue Book data as published by the ONS.

3. Excise (including alcohol, tobacco and oils)



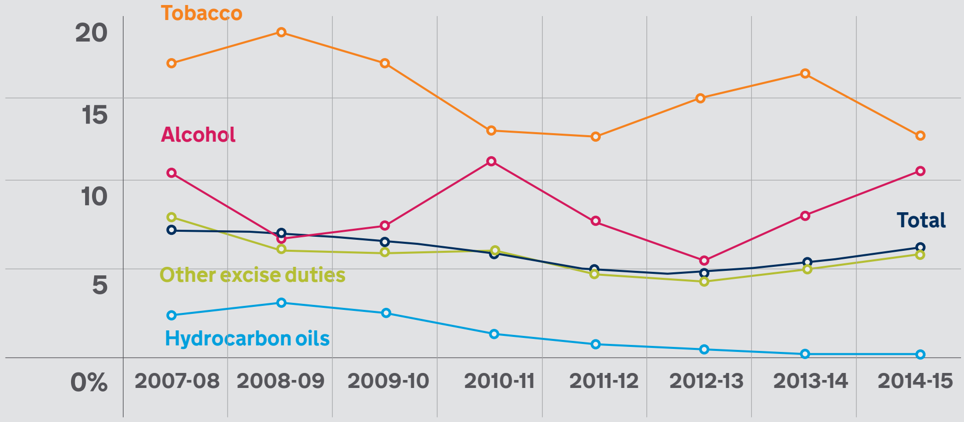
Key findings

The excise tax gap was estimated to be £3.8 billion in 2014-15. Associated losses in duty were £2.8 billion and VAT £1.0 billion. The duty tax gap for excise was 5.3% of theoretical tax liabilities.

This is broken down into:

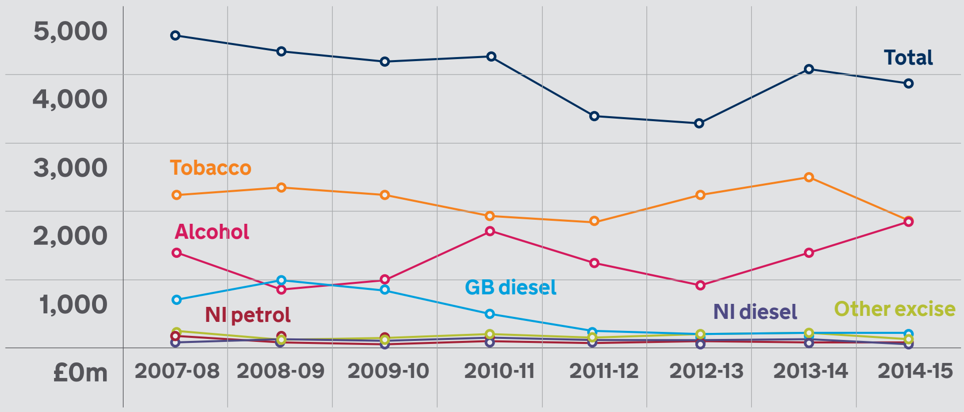
- £1.8 billion alcohol tax gap, with associated loss in alcohol duty (£1.2 billion) and VAT (£0.6 billion).
- £1.8 billion tobacco tax gap, with associated loss in tobacco duty (£1.4 billion) and VAT (£0.4 billion). This includes both cigarettes and hand-rolling tobacco.
- Less than £50 million lost in GB diesel duty and associated VAT.
- £50 million lost in Northern Ireland (NI) diesel duty and associated VAT.
- £130 million lost in other excise duties.
- The overall excise duty tax gap as a percentage of theoretical tax liabilities has fallen from 8.0% in 2005-06 to 5.3% in 2014-15.

Figure 3.0.1 Excise duty tax gaps as a percentage of theoretical tax liabilities by sector 2007-08 to 2014-15



The overall excise tax gap has fallen from £4.6 billion in 2007-08 to £3.8 billion in 2014-15.

Figure 3.0.2 Excise tax gap (Duty and VAT combined) by sector (£ million) 2007-08 to 2014-15



3.1 Alcohol

In 2014-15 the overall alcohol tax gap was 10.4% of duty theoretical liabilities. It has varied between 5.5% and 11.4% in the period 2007-08 to 2014-15. The alcohol tax gap has risen from £1.4 billion in 2007-08 to £1.8 billion in 2014-15. However there has been some volatility in the time-series. An estimated total of £1.2 billion was lost in alcohol duties and a further £0.6 billion in VAT leading to a total alcohol tax gap of £1.8 billion in 2014-15. Alcohol comprises of beers, spirits and wine estimates.

Users of tax gap estimates should note that the methodology used for beer differs from that of spirits and wine in two key areas:

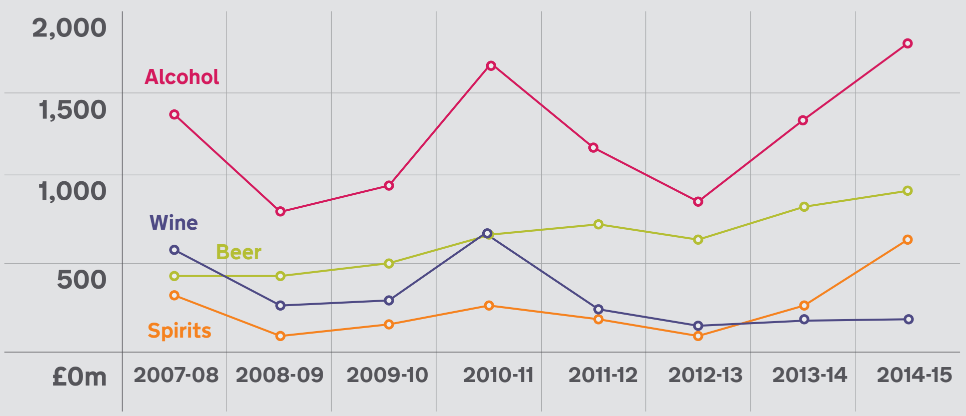
- in estimating the upper and lower bounds
- in calculating an additional uplift factor for under-reporting of consumption

Information on the different methodologies can be found in the 'Methodological annex'.

The methodological annex is available on our website
www.gov.uk/government/statistics/measuring-tax-gaps

Due to the uncertainty in the methodology used, the central estimates presented should be interpreted as an indicator of long-term trends rather than a precise estimate of year-on-year changes.

Figure 3.1.1 Alcohol tax gap (duty and VAT combined) (£ million) 2007-08 to 2014-15



3.1.1 Beer

The beer illicit market share was estimated at 15% in 2014-15. This resulted in estimated losses of £650 million in duty and a further £300 million in Value Added Tax (VAT) giving a total loss of £950 million.

The illicit market share in beer has increased from 9% in 2007-08 to 15% in 2014-15.

HMRC uses two different methods to estimate the beer tax gap. These methods provide an upper estimate and lower estimate. The true tax gap could be anywhere between these two estimates. The implied central estimate is intended to be an indicator of long-term trends.

The lower estimate has remained relatively stable fluctuating between 6% and 8%. The upper estimate has risen from 12% in 2007-08 to 22% in 2014-15.

The beer upper estimates for 2013-14 have been revised upwards, due to estimated consumption being higher than previously forecast.

Table 3.1.1 Beer: Illicit market share and tax gap[1,2]

	2005-06	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15
Illicit market share[3]							
Upper estimate	8%	13%	17%	17%	14%	20%	22%
Central estimate	**n/a**	**10%**	**12%**	**12%**	**11%**	**14%**	**15%**
Lower estimate	n/a	6%	7%	7%	8%	7%	7%
Tax gap (£ million)[4,5]							
Upper estimate	400	700	1,050	1,100	850	1,300	1,500
Implied central estimate	**n/a**	**500**	**700**	**750**	**650**	**850**	**950**
of which VAT	n/a	150	200	200	200	250	300
of which Duty	n/a	400	550	550	450	600	650
Lower estimate	n/a	300	350	350	400	400	400

1 Lower and mid-point estimates are not available for years before 2007-08.
2 Figures for previous years have been revised.
3 Figures independently rounded to the nearest 1%.
4 Includes both duty and VAT.
5 Figures independently rounded to the nearest £50 million.

A full time series for tables is available on our website
www.gov.uk/government/statistics/measuring-tax-gaps-tables

3.1.2 Spirits

The estimated illicit market share for spirits was 12% in 2014-15, with a total tax gap of £650 million. This is broken down into a loss of £240 million in VAT and £410 million in duty.

The estimates of the spirits tax gap are quite volatile. The confidence intervals for the spirits tax gap are wide and year-on-year changes should be interpreted in the context of this statistical uncertainty.

As with the beer upper estimate, the 2013-14 estimates for spirits have been revised upwards, due to estimated consumption being higher than previously forecast.

Table 3.1.2 Spirits: Illicit market share and tax gap[1]

	2005-06	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15
Illicit market share[2]							
Upper estimate	12%	11%	13%	11%	10%	14%	20%
Central estimate	**6%**	**4%**	**6%**	**4%**	**2%**	**6%**	**12%**
Lower estimate[3]	0%	0%	0%	0%	0%	0%	3%
Tax gap (£ million)[4,5]							
Upper estimate	440	440	580	580	500	750	1,160
Central estimate	**230**	**160**	**270**	**200**	**90**	**280**	**650**
of which VAT	70	50	90	70	30	100	240
of which Duty	150	120	180	130	50	180	410
Lower estimate[3]	10	0	0	0	0	0	140

1 Figures for previous years have been revised.
2 Figures independently rounded to the nearest 1%.
3 Negative numbers have been truncated at zero.
4 Includes both duty and VAT.
5 Figures independently rounded to the nearest £10 million.

A full time series for tables is available on our website
www.gov.uk/government/statistics/measuring-tax-gaps-tables

3.1.3 Wine

It has not been possible to estimate the illicit market share for wine, due to a change in one of the underlying commercial data sources previously used to estimate the wine tax gap. An illustrative estimate of 3% is provided for 2013-14 and 2014-15 by taking the average illicit market share of 2011-12 and 2012-13. This would indicate a total wine tax gap of around £200 million in 2013-14 and 2014-15. HMRC is exploring alternative data sources in order to develop a new method to estimate the wine tax gap in the future.

Table 3.1.3 shows that since 2009-10, the illicit market share for wine has been between 2% and 6%, with the exception of an increase to 12% in 2010-11.

Table 3.1.3: Wine: Illicit market share and tax gap[1]

	2009-10	2010-11	2011-12	2012-13	2013-14[2]	2014-15[2]
Illicit market share[3]						
Upper estimate[4]	11%	18%	9%	8%	9%	9%
Central estimate	**6%**	**12%**	**4%**	**2%**	**3%**	**3%**
Lower estimate[4,5]	1%	6%	0%	0%	0%	0%
Tax gap (£ million)[6,7]						
Upper estimate[4]	590	1,110	600	540	630	630
Implied central estimate	**310**	**710**	**250**	**130**	**200**	**200**
of which VAT	110	270	100	50	80	80
of which Duty	200	440	150	80	120	120
Lower estimate[4,5]	20	300	0	0	0	0

1 Figures for previous years have been revised.
2 Estimates for 2013-14 and 2014-15 are illustrative.
3 Figures independently rounded to the nearest 1%.
4 Confidence intervals are experimental and should be taken as illustrative.
5 Negative numbers have been truncated at zero.
6 Includes both duty and VAT.
7 Figures independently rounded to the nearest £10 million.

3.2 Tobacco

The tobacco tax gap is made up of the illicit market in cigarettes and hand-rolling tobacco and is estimated to be £1.8 billion in 2014-15. An estimated total of £1.4 billion was lost in tobacco duties and a further £0.4 billion in VAT. The cigarette tax gap and the hand-rolling tobacco tax gap were estimated to be £900 million each in 2014-15.

Due to the uncertainty inherent in the methodology, the central estimate should be interpreted as an indicator of long-term trends rather than a precise estimate of year-on-year changes.

Information on tobacco tax gaps is shown up to and including 2014-15 in this chapter. The separate publication 'Tobacco tax gap estimates 2015-16', published alongside Measuring tax gaps 2016, contains estimates up to and including 2015-16.

Tobacco tax gap estimates 2015-16 is available on our website
www.gov.uk/government/statistics/tobacco-tax-gap-estimates

Patterns of both legitimate and illicit tobacco consumption have changed over time in the UK. Although overall tobacco consumption is declining, hand-rolling tobacco consumption has remained relatively stable in recent years while cigarette consumption has declined.

The illicit market has declined in the long-term, but the composition of the tax gap has changed. The share of the tax gap which can be associated with hand-rolling tobacco was under a third in 2005-06, but it represents half of the tax gap in 2014-15.

The historical time series has been revised, as new data on people who falsely deny whether they smoke (from the Health Survey England) has become available. This information affects total consumption and tax gaps for both cigarettes and hand-rolling tobacco. See section 3.6.2 for more details of this revision.

The combined tobacco tax gap is the sum of the central estimates for cigarettes and hand-rolling tobacco. However, it is not possible simultaneously to combine both upper (or equivalently, lower) estimates for cigarettes and hand-rolling tobacco so there is no upper or lower bound estimate for the combined tobacco tax gap. More detail on upper and lower bounds is covered in section 3.5.4 and in the 'Methodological annex'.

The methodological annex is available on our website
www.gov.uk/government/statistics/measuring-tax-gaps

Table 3.2: Tobacco Tax Gap (£ million) [1,2,3]

	2005-06	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15
Cigarette illicit market[4]							
Upper estimate	2,400	1,900	1,700	1,600	1,900	2,000	1,400
Central estimate	**1,900**	**1,500**	**1,200**	**1,000**	**1,300**	**1,400**	**900**
of which VAT	300	200	200	200	300	300	200
of which Duty	1,500	1,200	900	800	1,000	1,100	700
Lower estimate	1,400	1,000	700	400	600	800	300
Hand-rolling tobacco illicit market[5]							
Upper estimate	1,000	900	900	1,000	1,100	1,200	1,100
Central estimate	**800**	**700**	**700**	**800**	**900**	**1,100**	**900**
of which VAT	200	200	200	200	200	300	200
of which Duty	700	600	500	600	700	800	700
Lower estimate	700	600	500	600	700	900	700
Combined tobacco illicit market[6]	**2,700**	**2,200**	**1,900**	**1,800**	**2,200**	**2,500**	**1,800**

1 Figures for previous years have been revised.
2 Figures are independently rounded to the nearest £100 million.
3 Includes both duty and VAT.
4 Based on the weighted average price (WAP) of all UK duty paid cigarettes.
5 Weighted average price (WAP) data for all UK duty paid hand-rolling tobacco is not available prior to 2012-13, so the losses are based on the price of a 'typical brand'.
6 The upper (or lower) bounds for both cigarette and hand-rolling tobacco cannot be combined. Only the central estimates are simultaneously possible.

A full time series for tables is available on our website
www.gov.uk/government/statistics/measuring-tax-gaps-tables

3.2.1 Cigarettes

The central estimate should be interpreted as an indicator of long-term trends rather than a precise estimate of year-on-year changes.

The central estimate for the cigarette tax gap was 7% in 2014-15. There is an overall long-term downward trend since 2005-06 from a central estimate of 16%, but year-on-year changes are inconsistent. Total consumption is obtained from the opinions and lifestyle survey conducted by the ONS. The sample is representative of the cigarette smoking population, but as with all surveys it suffers from sampling error. Due to the nature of the data, small movements in overall consumption can have noticeable impacts on the illicit market/tax gap.

UK tax paid cigarette consumption has steadily declined from 49.5 billion cigarettes in 2005-06 to 33.5 billion cigarettes in 2014-15. There has also been a long-term decline in the estimated volume of cigarettes in the illicit market. In 2005-06 the central estimate for the illicit market was ten billion cigarettes in the UK, compared to central estimates of between three billion and five billion in years since 2010-11. The central estimate of three billion illicit cigarettes in 2014-15 should be interpreted in the context of statistical uncertainty, with an upper estimate of 4.5 billion illicit cigarettes and a lower estimate of one billion illicit cigarettes.

Figure 3.2.1: Cigarette central estimate for illicit market and UK tax paid consumption (billion cigarettes)

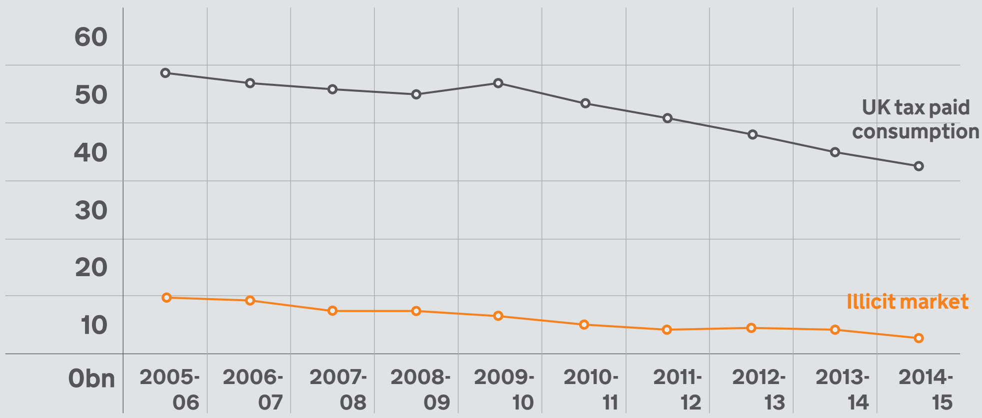


Table 3.2.1: Cigarettes: Illicit market share and breakdown of volumes (billion cigarettes)[1,2]

	2005-06	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15
Illicit market share							
Upper estimate	19%	16%	14%	13%	15%	15%	12%
Central estimate	**16%**	**12%**	**10%**	**8%**	**10%**	**11%**	**7%**
Lower estimate	12%	9%	6%	3%	5%	6%	3%
Total consumption							
Upper estimate	66.5	58.5	53.0	49.5	47.0	43.5	39.5
Central estimate	**64.0**	**56.0**	**51.0**	**47.0**	**44.5**	**41.5**	**37.5**
Lower estimate	61.5	54.0	49.0	44.5	42.5	39.5	36.0
UK tax paid consumption	49.5	**47.5**	**44.5**	**41.5**	**38.5**	**35.5**	**33.5**
Illicit market							
Upper estimate	12.5	9.0	7.5	6.5	7.0	6.5	4.5
Central estimate	**10.0**	**7.0**	**5.0**	**4.0**	**4.5**	**4.5**	**3.0**
Lower estimate	7.5	5.0	3.0	1.5	2.5	2.5	1.0
Cross-border shopping[3]	4.0	**2.0**	**1.5**	**1.5**	**1.5**	**1.5**	**1.5**

1 Figures for previous years have been revised.
2 Figures are independently rounded to the nearest 1% or 0.5 billion cigarettes.
3 Includes duty free as well as EU duty paid.

A full time series for tables is available on our website
www.gov.uk/government/statistics/measuring-tax-gaps-tables

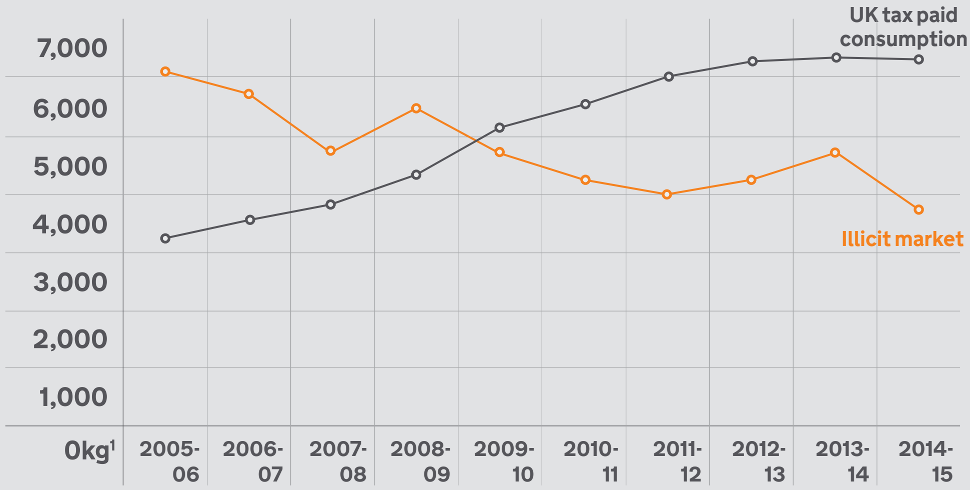
3.2.2 Hand-rolling tobacco

The central estimate should be interpreted as an indicator of long-term trends, rather than a precise estimate of year-on-year changes.

The tax gap for hand-rolling tobacco was estimated to be 35% in 2014-15. The long-term trend is of a relatively steadily decreasing tax gap, down from 60% in 2005-06.

The UK tax paid consumption volume of hand-rolling tobacco steadily increased between 2005-06 and 2012-13 and has been relatively stable since 2012-13. The illicit market volume of hand-rolling tobacco has shown a long-term decline since 2005-06 and in 2014-15 was estimated to be 3,700 thousand kg.

Figure 3.2.2: Hand-rolling tobacco central estimate for illicit market and UK tax paid consumption (thousand kg)



1 Thousand kg

Table 3.2.2: Hand-rolling tobacco: Illicit market share and breakdown of volumes (thousand kg)[1,2]

	2005-06	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15
Illicit market share							
Upper estimate	65%	49%	46%	43%	43%	44%	40%
Central estimate	**60%**	**44%**	**39%**	**37%**	**37%**	**40%**	**35%**
Lower estimate	55%	39%	33%	31%	32%	36%	30%
Total consumption[3]							
Upper estimate	11,200	11,400	11,400	11,400	12,100	12,300	11,200
Central estimate	**10,200**	**10,600**	**10,400**	**10,600**	**11,200**	**11,500**	**10,500**
Lower estimate	9,100	9,700	9,500	9,700	10,300	10,800	9,800
UK tax paid consumption	**3,200**	**5,100**	**5,500**	**6,000**	**6,200**	**6,300**	**6,300**
Illicit market							
Upper estimate	7,200	5,600	5,200	4,900	5,200	5,500	4,400
Central estimate	**6,100**	**4,700**	**4,200**	**4,000**	**4,200**	**4,700**	**3,700**
Lower estimate	5,000	3,800	3,200	3,100	3,300	3,900	3,000
Cross-border shopping[3]							
Associated with upper estimate	700	700	600	600	700	500	400
Associated with central estimate	**800**	**700**	**700**	**700**	**700**	**500**	**500**
Associated with lower estimate	900	800	800	700	800	600	500

1 Figures for previous years have been revised.
2 Figures are independently rounded to the nearest 1% or 100,000kg.
3 Includes duty-free as well as EU duty paid.

A full time series for tables is available on our website
www.gov.uk/government/statistics/measuring-tax-gaps-tables

3.3 Oils

The oils tax gap includes both Great Britain (GB) diesel and petrol; and Northern Ireland diesel and petrol.

The central estimate of the GB diesel illicit market share is less than 1% with an upper estimate of 3%. The revenue loss is estimated to be up to £700 million, with a central estimate of less than £50 million. The illicit market share has decreased from 5% in 2009-10 and is in long-term decline.

GB petrol losses are assumed to be negligible, due to low demand from commercial sectors and the flammable nature of the product.

The central estimate market share for fraudulent diesel in Northern Ireland was 8%, with a tax gap of £50 million in 2014-15. The illicit market share in Northern Ireland diesel shows a long-term decreasing trend from 19% in 2005-06 to 8% in 2014-15.

HMRC estimates the market share for fraudulent petrol in Northern Ireland to be negligible in 2014-15.

3.3.1 Great Britain diesel

The reduction in the illicit market share of Great Britain (GB) diesel continues a long-term trend from 5% in 2005-06 to less than 1% in 2014-15. It is difficult, however, to precisely determine the small illicit market using a top-down methodology, due to uncertainties in input data and sampling errors. The associated upper and lower estimates correspond to confidence intervals which indicate the range that the illicit market share may take. Lower estimates in 2011-12 to 2014-15 have been truncated at zero.

2013-14 estimates have been carried forward for 2014-15. HMRC is exploring alternative data sources in order to develop a new method to estimate the GB diesel tax gap.

Table 3.3.1: GB diesel: Illicit market share and tax gap

	2005-06	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15
Illicit market share[1]							
Upper estimate	8%	9%	6%	5%	3%	3%	3%
Central estimate	**5%**	**5%**	**2%**	**1%**	**<1%**	**<1%**	**<1%**
Lower estimate	2%	1%	0%	0%	0%	0%	0%
Tax gap (£ million)[2,3]							
Upper estimate	1,250	1,600	1,200	1,050	750	700	700
Central estimate	**750**	**850**	**400**	**150**	**<50**	**<50**	**<50**
of which VAT	200	200	100	50	<50	<50	<50
of which Duty	600	700	300	100	<50	<50	<50
Lower estimate[4]	300	100	0	0	0	0	0

1 Figures independently rounded to the nearest 1%.
2 Includes both duty and VAT.
3 Figures rounded to the nearest £50 million.
4 Negative numbers have been truncated at zero.

A full time series for tables is available on our website
www.gov.uk/government/statistics/measuring-tax-gaps-tables

3.3.2 Northern Ireland diesel

The Northern Ireland diesel tax gap has been declining in the long-term from 19% in 2005-06 to 8% in 2014-15.

The estimate for 2009-10 is unusually low and has been discussed in more detail in previous editions of 'Measuring tax gaps'. As the price difference of diesel was small between NI and the Republic of Ireland there was a drop in cross-border shopping and an increase in diesel receipts in NI.

2013-14 estimates have been carried forward for 2014-15. HMRC is exploring alternative data sources in order to develop a new method to estimate the NI diesel tax gap.

Table 3.3.2: NI diesel: Illicit market share and tax gap

	2005-06	2009-10[1]	2010-11	2011-12	2012-13	2013-14	2014-15
Illicit market share[2]							
Upper estimate	21%	9%	15%	16%	14%	11%	11%
Central estimate	**19%**	**6%**	**12%**	**13%**	**11%**	**8%**	**8%**
Lower estimate	16%	2%	9%	10%	7%	4%	4%
Tax gap (£ million)[3,4]							
Upper estimate	100	50	100	110	90	70	70
Central estimate	**80**	**30**	**70**	**80**	**70**	**50**	**50**
of which VAT	20	10	20	20	20	10	10
of which Duty	70	30	60	60	50	30	30
Lower estimate	70	10	50	60	40	20	20

1 The low level of the non-UK duty paid market in 2009-10 is believed to be due to a reduced level of cross-border shopping.
2 Figures independently rounded to the nearest 1%.
3 Includes both duty and VAT.
4 Figures independently rounded to the nearest £10 million.

A full time series for tables is available on our website
www.gov.uk/government/statistics/measuring-tax-gaps-tables

3.3.3 Northern Ireland petrol

The non-UK duty paid petrol market includes both the illicit market and legitimate cross-border shopping consumed in NI. Petrol is considered to be less vulnerable to illicit activity than diesel. Additionally, analysis carried out for NI cross-border shopping in 'Measuring tax gaps 2014 edition' suggested that at least 50% and possibly all the NI petrol market was cross-border shopping, but the model is not sensitive enough to determine the split more accurately. Given this, HMRC considers the NI petrol market to be negligible.

3.4 Other Excise

Other excise duties tax gap include betting and gaming, cider and perry, spirits based ready-to-drinks and biofuels. The illustrative tax gap for other excise duties in 2014-15 was £130 million.

Table 3.4: Other Excise Tax Gap (£ million)[1]

	2005-06	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15
Other excise duties	140	120	120	100	90	130	130

1 Figures rounded to nearest £10 million.

A full time series for tables is available on our website
www.gov.uk/government/statistics/measuring-tax-gaps-tables

3.5 Methodology and data issues

More detailed description of methodologies used in calculating Excise Taxes tax gap are covered in the 'Methodological annex' publication.

The methodological annex is available on our website
www.gov.uk/government/statistics/measuring-tax-gaps

3.5.1 Beer

Upper estimate

The beer tax gap upper estimate is produced using a 'top-down' methodology: total consumption is estimated, and then the legitimate consumption is subtracted, with the remainder being the illicit market.

Total consumption is estimated using the Office for National Statistics (ONS) Living Costs and Food (LCF) survey. Legitimate consumption is based on the returns that HMRC receives from the volumes of alcohol on which duty have been paid and estimates of cross-border shopping and duty free.

Lower estimate

The beer tax gap lower estimate is produced using a 'bottom-up' methodology. This means estimates of illicit beer are made directly, using HMRC data. This type of methodology is less comprehensive than the 'top-down' approach, as it does not cover all types of fraud. The lower estimate includes only estimates of the diversion of UK-produced beer and drawback fraud and is therefore an underestimate.

Difficulty in estimating a number of beer frauds means they are not included in this methodology and is one of the reasons it is described as a lower-bound estimate. The types of frauds not covered include smuggled beer, diversion of foreign-produced beer and counterfeit beer.

Implied central estimate

The implied central estimate is calculated as the average of the upper and lower estimates. Taking the mid-point of both estimates is the best approach, where we are unable to measure appropriate confidence intervals. The central estimate is only intended as an indicator of long-term trend - the true tax gap could lie anywhere within these bounds.

The upper and lower estimates should be interpreted as indicators of the long-term trend, rather than precise estimates of the level or year-on-year changes. They do not take account of any systematic tendency to over or under estimate the tax gap that might arise from the modelling assumptions.

3.5.2 Spirits

The spirits tax gap estimate is produced using a 'top-down' methodology that involves estimating total consumption from which legitimate consumption is then subtracted – with the remainder being the illicit market.

Total consumption is estimated using data from the ONS Living Costs and Food (LCF) survey. Legitimate consumption is based on the returns HMRC receives from the volumes of alcohol on which duty have been paid and an estimate of cross-border shopping and duty free.

For spirits, the central estimate should be interpreted as an indicator of the long-term trends in the illicit market share, rather than a precise estimate of the level or year-on-year changes. The confidence intervals indicate the uncertainty surrounding the estimate due to sampling error. They do not account for additional types of error that may arise from the assumptions made in the calculations.

3.5.3 Wine

The wine tax gap was previously estimated using an experimental 'top-down' methodology. As with spirits and the beer upper bound estimate, legitimate consumption is subtracted from estimated total consumption with the remainder being the illicit market.

Wine presents a unique challenge for estimating total consumption. Whereas HMRC is able to use the Living Costs and Food (LCF) survey to estimate consumption of beer and spirits, the LCF is a survey of households and there is a sizeable non-household component of spending on wine. For example, businesses will spend money on wine entertaining clients and potential clients. This business expenditure is not captured by the LCF survey of households.

Furthermore, although the LCF is a representative survey of households, it may not adequately capture infrequent, but high volume, expenditure on wine for example, the cost of providing wine at a wedding or other large function. HMRC previously used commercial data to estimate these additional components of wine expenditure. However, due to a change in the underlying data source used, we cannot use existing methodology to estimate the wine tax gap for 2013-14 and 2014-15. An illustrative estimate is provided using the average of the 2011-12 and 2012-13 estimates instead. HMRC is exploring alternative data sources in order to develop a new method to estimate the wine tax gap.

3.5.4 Tobacco

The estimates are produced using a 'top-down' methodology: total consumption is estimated, from which legitimate consumption is subtracted, the remainder being the illicit market.

Total consumption is estimated using data from the ONS Opinions and Lifestyle survey. Legitimate consumption is based on the returns that HMRC receives from the volumes of tobacco on which duty have been paid and an estimate of cross-border shopping and duty free.

In addition to the uplift that accounts for under-reporting, there is an uplift that accounts for people who falsely deny smoking, which comes from the Health Survey for England.

The estimates are presented within a range defined by the upper and lower estimates. The range provides an indication of the size of both the illicit markets in cigarettes and hand-rolling tobacco depending on how dual smoker survey respondents are treated. The upper bound for cigarettes corresponds to a scenario where the majority of dual smokers consume cigarettes. The lower bound for cigarettes is calculated when cigarettes consumption by dual smokers is at a minimum. The upper and lower bounds for hand-rolling tobacco are calculated in a similar way. This means that the upper (or lower) bounds for both cigarettes and hand-rolling tobacco cannot be possible at the same time.

3.5.5 Oils

The central point estimates are best interpreted as an indicator of long-term trends in the illicit market share rather than precise estimates of the level or year-on-year changes. The upper and lower estimates corresponding to confidence intervals indicate the range where the true value of the illicit market may lie and arises because of random sampling error and the uncertainties associated with model input data.

For example, to estimate total fuel consumption we use estimates of how many kilometres are driven in total by different types of vehicle on different types of road and estimates of fuel efficiency corresponding to those journeys, as we cannot directly observe how much fuel is used in a year. If our estimate of distance travelled is too high or too low, or our estimates of fuel efficiency are too generous or too conservative, this will have an impact on the tax gap. The confidence intervals reflect the uncertainty in model inputs such as these.

Great Britain diesel

The Great Britain (GB) diesel tax gap estimates are produced using a 'top-down' methodology; total consumption is estimated, from which legitimate consumption is subtracted, with the remainder being the illicit market.

Estimates of GB diesel and petrol consumption are taken from a number of data sources, including sample surveys, vehicle testing and our own data.

The illicit market share in GB petrol is assumed to be negligible and this assumption lies behind the calculation for GB diesel. It remains difficult to estimate a comparatively small illicit market using top-down methods.

2013-14 estimates have been carried forward for 2014-15. HMRC is exploring alternative data sources in order to develop a new method to estimate the GB diesel tax gap.

Northern Ireland diesel

Estimates of Northern Ireland (NI) diesel and petrol consumption are based on the average consumption per vehicle in Great Britain.

The non-UK duty paid market is estimated and then cross-border shopping is subtracted to determine the illicit market. The non-UK duty paid market includes both the illicit market and legitimate cross-border shopping consumed in NI. It is difficult to separate these two markets and HMRC did not have an estimate of cross-border shopping between NI and the Republic of Ireland. Exploratory modelling was carried out in 2013 which gave us an indication of the cross-border shopping element. This estimate clearly indicates that in most years about half of the non-UK duty paid figure is from completely legitimate cross-border shopping and has been carried forward for the 2013-14 estimates.

2013-14 estimates have been carried forward for 2014-15. HMRC is exploring alternative data sources in order to develop a new method to estimate the NI diesel tax gap.

Northern Ireland petrol

Estimates of NI consumption are based on the average consumption per vehicle in Great Britain. The estimates for NI petrol relate to the non-UK duty paid market, rather than the illicit market.

3.5.6 Other excise duties

A proxy indicator for the scale of revenue losses across other excise duties has been produced by estimating the average percentage of tax gaps for similar taxes each year and multiplying this by total theoretical tax liabilities (receipts plus tax gap).

The average percentage revenue losses should not be considered estimates of the true percentage loss across the taxes listed in section 3.4 under 'Other excise duties' as this is unknown. Many of the taxes listed are very different from one another in their nature, each being subject to different rules. The true percentage tax gaps are therefore likely to vary across the taxes listed.

3.6 Revisions

3.6.1 Beer, spirits and wine

The Living Cost and Food survey results are published 18 months after the survey takes place. For this reason, the 2014-15 tax gap estimates for beer and spirits published last year in 'Measuring tax gaps 2015 edition' have all been revised with new data on consumption for the final quarter replacing previously forecast information. The latest estimates for 2014-15 are provisional, as forecasted data on consumption has been used for the final quarter of 2014-15.

There are also minor revisions to some historical data sources.

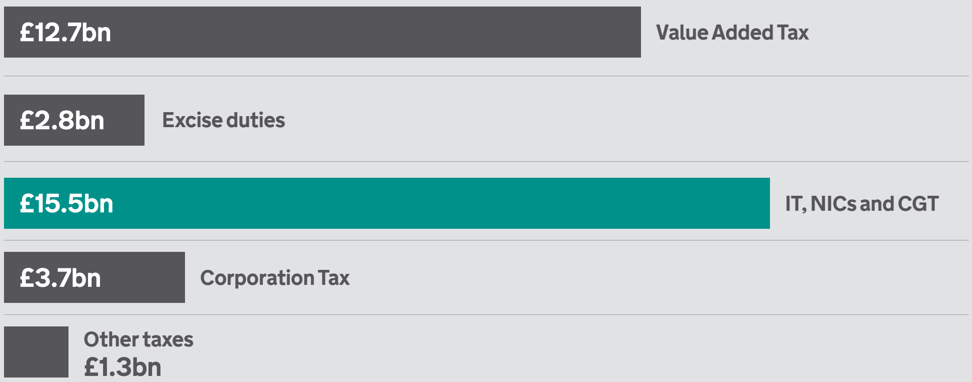
3.6.2 Tobacco

Information on people who falsely deny tobacco use from Health Survey England has been updated. This affects total consumption estimates and has led to revisions to previously published estimates. The update was due to an improvement to the methodology rather than a shift in behaviour (i.e. an increase or decrease in people falsely denying tobacco use). Therefore the time series has been updated. For more information please refer to the 'Methodological annex'.

The methodological annex is available on our website
www.gov.uk/government/statistics/measuring-tax-gaps

4. Income tax, NICs and Capital Gains Tax

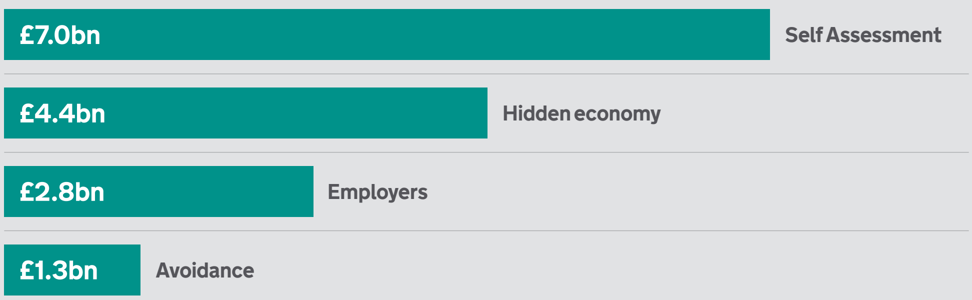
Tax gap by type of tax, 2014-15



Key findings

In 2014-15 the total estimated tax gap for income tax, National Insurance Contributions and Capital Gains Tax was £15.5 billion. This equates to 5.2% of total theoretical tax liabilities. It accounts for 43% of the overall tax gap in 2014-15.

Components of income tax, National Insurance Contributions and Capital Gains Tax, 2014-15



Individuals and partnerships in Self Assessment

The 2014-15 SA tax gap of £7.0 billion is equivalent to 19% of Self Assessment (SA) theoretical tax liabilities.

The tax gap from business taxpayers (sole traders and small partnerships) contributes the majority of the total SA tax gap (£5.0 billion), with non-business taxpayers accounting for £1.0 billion and large partnerships accounting for £1.0 billion.

The proportion of SA taxpayers who under-declared their tax liabilities has fallen from 29% in 2005-06 to 22% in 2012-13.

Business taxpayers are more likely to under-declare their tax liabilities than non-business taxpayers (30% for business compared to 12% for non-business in the latest year).

Employers

The 2014-15 employers tax gap of £2.8 billion is equivalent to 1.1% of employer Pay As You Earn (PAYE) theoretical tax liabilities.

The tax gap from small and medium-sized enterprise (SME) employers was £0.9 billion (1.3% of SME employer PAYE theoretical tax liabilities). The tax gap from large employers was £1.9 billion (1.1% of large employer PAYE theoretical tax liabilities).

The proportion of SME employers failing to correctly operate their PAYE scheme has decreased from 41% in 2005-06 to 24% in 2014-15.

Avoidance

The avoidance tax gap for income tax, National Insurance Contributions and Capital Gains Tax for 2014-15 is estimated to be £1.3 billion.

Hidden economy

The direct tax hidden economy estimate is £4.4 billion in 2014-15. This consists of ghosts (£1.2 billion), moonlighters (£2.0 billion) and PAYE individuals not in SA (£1.2 billion).

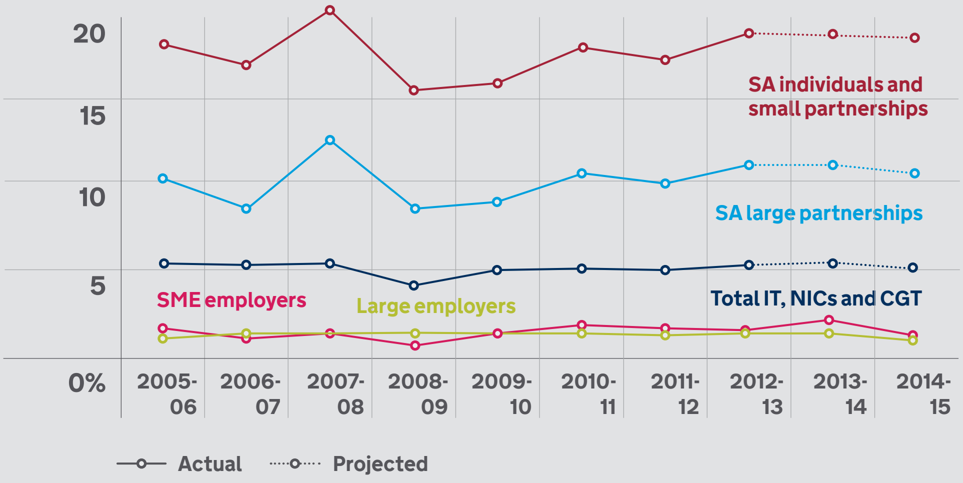
Results and tables

Self Assessment and employers

The overall tax gap for income tax, National Insurance Contributions and Capital Gains Tax (IT, NICs and CGT) is estimated in a number of different ways. The estimates for individuals and small partnerships who complete SA returns, and small and medium-sized employers are both from the results of random enquiry programmes (REPs). The tax gaps for large partnerships and large employers are illustrative estimates of the tax gap produced by assuming the tax at risk will represent a similar proportion of theoretical tax liabilities to all other SA or employer taxpayers. For more information, see the 'Methodology and data issues section'.

Figure 4.1 shows that the Total IT, NICs and CGT tax gap estimate as a proportion of total theoretical tax liabilities has stayed broadly stable at between 5% and 6% from 2005-06 to 2014-15, with a slight dip to 4.3% in 2008-09. The tax gap as a proportion of theoretical tax liabilities is larger for those in SA than for employers, and also shows more variation from year to year. The trends for both SME and large employers are more stable, with the percentage around 1% to 2% across most of the years shown.

Figure 4.1: SA individuals and small partnerships, SA large partnerships, SME employers and large employers tax gaps as a proportion of theoretical tax liabilities



SA individuals and small partnerships

Tax gap estimates from incorrect returns come from the SA random enquiry programme (SA REP), data on compliance yield and data on non-payment. The latest SA REP data available is for the 2012-13 tax year, with estimates for subsequent years projected forward based on the year-on-year change in tax liabilities.

Table 4.1 shows estimated tax gaps for SA taxpayers (excluding large partnerships) due to incorrect returns for the tax years 2005-06 to 2014-15. This could be as a result of error, failure to take reasonable care or evasion. The SA tax gap as a proportion of theoretical tax liabilities has fluctuated between 16% and 21% over the years with no clear trend. The tax gap for SA taxpayers in 2014-15 is at the same level as in 2005-06, at 19%. Non-payment has remained broadly stable, staying between £0.2 billion and £0.4 billion.

Table 4.1: SA tax gap (excluding large partnerships) (£ billion)[1]

	2005-06	2009-10	2010-11	2011-12	2012-13	2013-14[2]	2014-15[2]
Under-declared liabilities due to incorrect returns							
Upper estimate	9.6	10.2	10.4	8.7	10.4	11.0	12.6
Central estimate	5.4	5.0	5.1	4.6	5.5	5.8	6.6
Lower estimate	2.6	2.6	2.0	2.2	2.5	2.7	3.1
Compliance yield[3]	0.6	0.9	0.7	0.6	0.7	0.7	0.8
Non-payment	0.2	0.3	0.3	0.2	0.2	0.2	0.2
Total tax gap							
Upper estimate	9.1	9.6	10.0	8.3	9.9	10.5	12.0
Central estimate	**4.9**	**4.4**	**4.6**	**4.2**	**5.0**	**5.3**	**6.0**
Lower estimate	2.1	2.0	1.6	1.8	2.1	2.2	2.5
Total theoretical tax liabilities	26.5	27.2	25.3	24.4	26.0	28.0	31.3
Proportion of liabilities	**19%**	**16%**	**18%**	**17%**	**19%**	**19%**	**19%**

1 Figures rounded to the nearest £0.1 billion. As a result components may not appear to sum.
2 Tax gap estimates for 2013-14 and 2014-15 are projected based on SA liabilities figures for the respective years and will be revised when operational data becomes available.
3 By period of settlement of enquiry.

A full time series for tables is available on our website
www.gov.uk/government/statistics/measuring-tax-gaps-tables

Table 4.2 shows estimated tax gaps for SA taxpayers (excluding large partnerships) split by business and non-business taxpayers for the tax years 2005-06 to 2014-15. Business taxpayers accounted for 83% to 90% of the total tax gap between 2005-06 and 2014-15, except for 2007-08 when the level decreased to 73%. The full data series can be seen in the online tables.

Table 4.2: SA tax gap by type of taxpayer (£ billion)[1]

	2005-06	2009-10	2010-11	2011-12	2012-13	2013-14[2]	2014-15[2]
Business taxpayers	4.4	3.9	3.9	3.6	4.2	4.5	5.0
Non-business taxpayers	0.5	0.6	0.7	0.7	0.8	0.8	1.0
Total tax gap	**4.9**	**4.4**	**4.6**	**4.2**	**5.0**	**5.3**	**6.0**

1 Figures rounded to the nearest £0.1 billion. As a result components may not appear to sum.
2 Tax gap estimates for 2013-14 and 2014-15 are projected based on SA liabilities figures for the respective years and will be revised when operational data becomes available.

A full time series for tables is available on our website
www.gov.uk/government/statistics/measuring-tax-gaps-tables

Table 4.3 shows the estimated proportion of incorrect SA returns leading to under-declaration of liabilities. This decreased from 29% to 22% between 2005-06 and 2012-13. The reduction is seen most clearly for lower amounts of under-declaration; the proportion where under-declaration is more than £1,000 is broadly unchanged over time.

Table 4.3: Proportion of SA returns with under-declared tax liability[1]

	2005-06	2009-10	2010-11	2011-12	2012-13
Proportion of SA returns	29%	25%	21%	22%	22%
of which, size of under-declaration					
£1 to £500	15%	12%	9%	10%	9%
£501 to £1,000	5%	5%	3%	4%	3%
over £1,000	9%	9%	8%	8%	9%

1 Figures rounded to the nearest 1%. As a result components may not appear to sum.

A full time series for tables is available on our website
www.gov.uk/government/statistics/measuring-tax-gaps-tables

The proportion of under-declarations shown in Table 4.3 can be further split by business and non-business taxpayers. Table 4.4 shows the estimated proportion of incorrect SA returns leading to under-declaration of liabilities for 2005-06 to 2012-13 for business taxpayers only. The proportion of incorrect SA returns from business taxpayers has fallen from 49% to 30% between 2005-06 and 2012-13. The reduction is again seen most clearly for lower amounts of under-declaration.

Table 4.4: Business taxpayers: Proportion of SA returns with under-declared tax liability[1]

	2005-06	2009-10	2010-11	2011-12	2012-13
Proportion of SA returns	49%	38%	33%	28%	30%
of which, size of under-declaration					
£1 to £500	21%	15%	13%	11%	12%
£501 to £1,000	10%	8%	6%	5%	4%
over £1,000	18%	15%	15%	15%	16%

1 Figures rounded to the nearest 1%. As a result components may not appear to sum

A full time series for tables is available on our website
www.gov.uk/government/statistics/measuring-tax-gaps-tables

Table 4.5 shows that between 2005-06 and 2012-13 the proportion of non-business taxpayers with under-declared liabilities is lower for non-business taxpayers than business taxpayers. This is because the majority of income tax paid by these non-business taxpayers is deducted at source under PAYE, leading to lower levels of incorrect SA returns.

Table 4.5: Non-business taxpayers: Proportion of SA returns with under-declared tax liability[1]

	2005-06	2009-10	2010-11	2011-12	2012-13
Proportion of SA returns	14%	13%	11%	16%	12%
of which, size of under-declaration					
£1 to £500	10%	8%	6%	10%	7%
£501 to £1,000	2%	2%	1%	3%	2%
over £1,000	2%	3%	3%	3%	4%

1 Figures rounded to the nearest 1%. As a result components may not appear to sum.

A full time series for tables is available on our website
www.gov.uk/government/statistics/measuring-tax-gaps-tables

Large partnerships in Self Assessment

Large partnerships are not covered by the SA random enquiry programme (SA REP) and so an illustrative estimate is made of the tax gap. This is produced by assuming the tax at risk represents a similar proportion of liabilities to all other SA taxpayers, as shown by the results of the SA REP.

Table 4.6 shows the tax gap for large partnerships in SA was £1.0 billion in 2014-15. This is broadly in line with previous years' estimates, following a peak of £1.2 billion in 2007-08, which can be seen in the full data series in the online tables. The higher 2007-08 figure was a result of increased liabilities of SA large partnerships in that year, combined with the spike in the percentage tax gap of SA individuals and small partnerships.

Table 4.6: Tax gap for large partnerships in SA (£ billion)[1]

	2005-06	2009-10	2010-11	2011-12	2012-13	2013-14[2]	2014-15[2]
Under-declared liabilities due to incorrect returns							
Upper estimate	0.8	1.0	1.2	1.1	1.3	1.4	1.5
Central estimate	0.7	0.8	0.9	0.9	1.0	1.1	1.2
Lower estimate	0.6	0.7	0.5	0.6	0.7	0.8	0.9
Compliance yield[3]	0.1	0.2	0.2	0.2	0.2	0.2	0.2
Non-payment	0.0	0.1	0.1	0.1	0.1	0.1	0.1
Total tax gap							
Upper estimate	0.7	0.8	1.1	0.9	1.1	1.2	1.3
Central estimate	**0.6**	**0.6**	**0.7**	**0.7**	**0.9**	**0.9**	**1.0**
Lower estimate	0.5	0.5	0.4	0.5	0.6	0.6	0.7
Total theoretical tax liabilities	5.7	6.8	6.8	7.1	7.6	8.1	9.1
Proportion of liabilities	**11%**	**9%**	**11%**	**10%**	**11%**	**11%**	**11%**

1 Figures rounded to the nearest £0.1 billion. As a result components may not appear to sum.
2 Tax gap estimates for 2013-14 and 2014-15 are projected based on SA liabilities figures for the respective years and will be revised when operational data becomes available.
3 By period of settlement of enquiry.

A full time series for tables is available on our website
www.gov.uk/government/statistics/measuring-tax-gaps-tables

Employers - Small and medium-sized enterprises

Tax gap estimates come from the employer compliance random enquiry programme (EC REP), data on compliance yield and data on non-payment. The latest EC REP data available is for the 2014-15 tax year.

Table 4.7 shows estimated tax gaps for SME employers for the tax years 2005-06 to 2014-15 have remained at around 1% to 2% of theoretical tax liabilities, with a minimum of 0.9% in 2008-09 and a maximum of 2.2% in 2013-14. The main cause of the rise since 2008-09 has been a £0.4 billion increase in non-payment in the period until 2013-14. In 2014-15 the tax gap fell from £1.5 billion in 2013-14 to £0.9 billion. The main factor for this fall was a £0.4 billion reduction in non-payment, which occurred around the time of the roll-out of the Real Time Information (RTI) system for employers.

Table 4.7: Tax gap for SME employers (£ billion)[1]

	2005-06	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15
Under-declared liabilities due to incorrect returns							
Upper estimate	1.1	0.7	1.3	0.9	0.6	0.8	0.6
Central estimate	0.9	0.6	0.9	0.7	0.5	0.7	0.5
Lower estimate	0.7	0.5	0.5	0.5	0.4	0.5	0.4
Compliance yield[2]	0.3	0.3	0.3	0.3	0.2	0.2	0.2
Non-payment	0.7	0.9	1.0	0.9	0.8	1.0	0.6
Total tax gap							
Upper estimate	1.5	1.3	2.0	1.4	1.1	1.7	1.0
Central estimate	**1.3**	**1.2**	**1.6**	**1.2**	**1.0**	**1.5**	**0.9**
Lower estimate	1.1	1.1	1.2	1.0	0.9	1.3	0.9
Total theoretical tax liabilities	77.1	82.3	84.1	70.5	69.2	68.3	70.1
Proportion of liabilities	**1.7%**	**1.5%**	**1.9%**	**1.7%**	**1.5%**	**2.2%**	**1.3%**

1 Figures rounded to the nearest £0.1 billion. As a result components may not appear to sum. Year relates to when enquiry was opened as employer compliance queries are not made in relation to an annual return. Values exclude the tax gap relating to avoidance; this figure is available as an aggregate figure for IT, NICs and CGT.
2 By period of settlement of enquiry.

A full time series for tables is available on our website
www.gov.uk/government/statistics/measuring-tax-gaps-tables

Table 4.8 shows the estimated proportion of employers failing to fully meet their obligations in respect of operating PAYE has fallen from 41% in 2005-06 to 24% in 2014-15. This fall is a result of a drop in small under-declarations (up to £1,000).

Table 4.8: Proportion of SME employers not meeting their PAYE scheme obligations[1]

	2005-06	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15
Proportion of PAYE schemes	41%	27%	26%	25%	20%	21%	24%
of which, size of under-declaration							
£1 to £1,000	23%	12%	12%	8%	5%	11%	7%
over £1,000	18%	14%	13%	17%	15%	11%	17%

1 Figures rounded to the nearest 1%. As a result components may not appear to sum. Year relates to when enquiry was opened as employer compliance queries are not made in relation to an annual return.

A full time series for tables is available on our website
www.gov.uk/government/statistics/measuring-tax-gaps-tables

Employers - Large

Large employers are not covered by the employer compliance random enquiry programme (EC REP) so an illustrative estimate is made of the tax gap. This assumes that the tax gap for large employers is the same percentage of liabilities as small and medium-sized employers.

Table 4.9 shows the estimated tax gap for large employers has gradually increased in line with total theoretical tax liabilities between the tax years 2005-06 and 2013-14, with a reduction in 2014-15. The main factor for this fall was a £0.4 billion reduction in non-payment, which occurred around the time of the roll-out of the RTI system for employers.

Table 4.9: Estimated tax gap for large employers (£ billion)[1]

	2005-06	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15
Under-declared liabilities due to incorrect returns							
Upper estimate	2.4	2.2	2.3	2.5	2.8	2.5	2.4
Central estimate	1.8	1.5	1.6	1.7	2.0	1.7	1.5
Lower estimate	1.2	0.9	0.8	0.9	1.2	0.8	0.7
Compliance yield[2]	0.1	0.2	0.3	0.3	0.5	0.2	0.3
Non-payment	0.1	0.7	0.8	1.0	1.0	1.1	0.7
Total tax gap							
Upper estimate	2.4	2.7	2.8	3.2	3.2	3.4	2.8
Central estimate	**1.8**	**2.0**	**2.1**	**2.4**	**2.4**	**2.5**	**1.9**
Lower estimate	1.2	1.4	1.4	1.6	1.6	1.7	1.0
Total theoretical tax liabilities	124.6	139.3	143.1	162.3	164.0	171.3	176.1
Proportion of liabilities	**1.5%**	**1.5%**	**1.5%**	**1.5%**	**1.5%**	**1.5%**	**1.1%**

1 Figures rounded to the nearest £0.1 billion. As a result components may not appear to sum. Values exclude the tax gap relating to avoidance; this figure is available as an aggregate figure for IT, NICs and CGT.
2 By period of settlement of enquiry.

A full time series for tables is available on our website
www.gov.uk/government/statistics/measuring-tax-gaps-tables

Avoidance

The avoidance tax gap for IT, NICs and CGT for 2014-15 is estimated to be £1.3 billion.

The overall estimate for the avoidance tax gap, which also includes Value Added Tax and Corporation Tax avoidance, is £2.2 billion (Table 1.6).

Hidden economy

The direct tax hidden economy estimate of £4.4 billion in 2014-15 consists of three elements: ghosts, moonlighters and PAYE individuals not in SA.

Ghosts and moonlighters

The 2014-15 illustrative estimate of the tax gap for ghosts was £1.2 billion and for moonlighters was £2.0 billion.

PAYE individuals not in SA

Estimates relating to the income and capital gains of individuals taxed through PAYE in 2014-15 and for whom HMRC do not receive SA returns was £1.2 billion. Estimates for 2010-11 to 2014-15 are projected from 2009-10 data in line with the trend in gross domestic product (GDP).

Methodology and data issues

Overview

Most of the IT, NICs and CGT components of the tax gap are estimated using our own sources, such as surveys, administrative and operational data. These methods are based on our compliance activity which can, in some cases, take years to complete. This means the resulting tax gap estimates typically apply to periods before 2014-15. This has two consequences:

- To produce a tax gap for years where we do not have random enquiry data, the latest available estimate is projected forward. The projections are made using the change in the tax liabilities for the relevant tax. Using tax liabilities ensures that our projections reflect changes to tax rates and taxable income, and projects a stable rate of underlying compliance. Hidden economy components are projected forward using growth in GDP or wages and salaries rather than tax liabilities, as there is no directly relevant data series to base predictions on.
- Estimates for earlier years have been revised, as they now include additional data from compliance checks that have been completed since last year's publication.

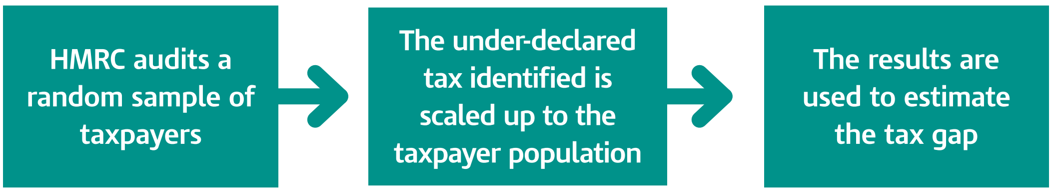
The methods used differ between taxes, according to the type of non-compliance and the type of taxpayer involved. The main methods used to estimate tax gaps for direct taxes are random enquiries, data matching and risk registers. Where robust methodologies have not yet been developed, an illustrative estimate of the tax gap is given, based on our operational experts opinion or calculated by selecting the nearest equivalent measured gap. Further information on the methodology to calculate tax gap estimates from random enquiries can be found in the 'Methodological annex'.

The methodological annex is available on our website
www.gov.uk/government/statistics/measuring-tax-gaps

Table 4.10: Summary of methods by tax gap estimates

Tax gap	Population section	Methods used
EC (IT and NICs on employment income and tax on occupational pensions)	Employers with up to 250 employees (except where the employer is part of a complex group).	Random enquiries
	Employers dealt with by our Large Business Service or are within the Local Compliance Large and Complex population.	Experimental
SA (IT, NICs and CGT)	Business taxpayers consisting of self-employed taxpayers and partnerships with up to four partners who receive notices to file an SA return.	Random enquiries
	Non-business taxpayers consisting of individuals without business income and trusts who receive notices to file an SA return.	Random enquiries
	Partnerships with five or more partners who receive notices to file an SA return.	Experimental
Avoidance (IT, NICs and CGT)	Individuals, trusts, partnerships and employers.	Risk register and improved management information
Hidden economy	Employees and pensioners who are taxed through PAYE but are outside SA.	Data matching
	Ghosts	Experimental
	Moonlighters	Experimental

Random enquiries



Random enquiry programmes (REPs) involve samples of taxpayers being selected at random and their returns subjected to full enquiries by HMRC officers. The results of these programmes show the proportion of taxpayers under-reporting their tax liabilities and the corresponding amount of additional tax due. These results can be used to produce an estimate for the amount of under-declared tax liability for the whole population, as the enquiries are randomly selected and form a representative sample. A proportion of the under-declared liabilities will be recovered as a result of our compliance activity, which is then subtracted from the estimate of under-declared liabilities. Losses through non-payment are also added to obtain final tax gap estimates.

The REPs will not identify all incorrect returns or the full scale of tax gaps, especially where independent information from third parties is not available to verify the data supplied by the taxpayer. This means that tax gap estimates produced through random enquiries will under-estimate the full extent of the tax gap.

The Internal Revenue Service (IRS) in the United States has previously tackled this problem by using a range of 'multipliers' to make adjustments for non-detection. These multipliers are generated through supplementary studies on particular tax return entries, together with econometric analysis of non-detection rates across IRS examiners. Multipliers based on the IRS research with some adjustments for the UK tax system, have been applied to the REP results. The multipliers used are consistent year on year and are due for review in 2017.

Data from the random enquiry programmes is lagged as tax enquiries take some time to complete. Tax gap estimates for years where data is not available are calculated by looking at tax liabilities for that area, and projecting a stable rate of non-compliance.

Individual estimates

Non-payment

The tax gap estimates include a measure of associated losses from non-payment of tax by the relevant type of taxpayer, if appropriate. Non-payment estimates for direct taxes come from our financial statements and represent amounts written off or remitted; that is, debts that are not collectable. This data only records when the debt was resolved and not which tax years it is related to. As the process for resolving a debt can take a substantial amount of time, the amounts written off or remitted during a tax year will not all relate to liabilities arising during that year.

Large employers

Larger employers (with more than 250 employees) are not covered by the employer compliance random enquiry programme (EC REP) so an illustrative estimate is made of the tax gap. This assumes that the tax gap for large employers is the same percentage of liabilities as for small and medium-sized employers.

Large partnerships

Partnerships with five or more partners are not covered by the SA random enquiry programme (SA REP) which means an alternative methodology is required to estimate the associated tax gap. An illustrative estimate is produced by assuming that the tax at risk will represent a similar proportion of liabilities to all other SA taxpayers, as shown by the results of the SA REP.

Avoidance

The IT, NICs and CGT avoidance tax gap of £1.3 billion for 2014-15 is estimated using HMRC's 'risk register' of information on identified avoidance schemes used by individuals, trusts, partnerships and employers. The method used to allocate risks across years has been improved this year using better management information. The tax gap is calculated by subtracting an annual estimate of the compliance yield from the annual estimated tax under consideration relating to avoidance. (See 'Methodological annex' for more information on data sources, methodology and limitations).

Hidden economy

The direct tax hidden economy estimate is composed of three elements:

- PAYE individuals not in SA
- Ghosts
- Moonlighters

PAYE individuals not in SA

A tax gap estimate is produced for employees and pensioners taxed under PAYE who do not receive SA returns and have not returned details of additional taxable income.

In the absence of updated data and consistent with estimates for 2010-11 to 2013-14, the estimate for 2014-15 is projected from the methodology that produced the 2009-10 estimate using the trend in GDP.

By matching data supplied by third parties to a sample of our PAYE records, it has been possible to produce a tax gap estimate relating to some sources of income and capital gains of individuals taxed through PAYE, but who do not receive SA returns. Several sources of income were investigated, such as income from lettings, bank and building society interest and capital gains. Where a difference was found between income in the third-party data and the tax records, the tax that should have been paid on this income, if any, was then calculated and identified as the tax gap. The results from the sample were then grossed to produce an estimate of the overall tax gap for all employees and pensioners taxed through PAYE who are outside SA.

The limitations associated with the results of this exercise relate to the coverage of the third-party data used to establish evidence of additional undeclared income. Not all potential sources of income could be investigated, due to availability of data, and the investigation of some sources was limited by the completeness of the information. As a result, the estimate should be interpreted as a lower limit for the true scale of the tax gap relating to this group of taxpayers.

Ghosts and moonlighters

'Ghosts' are individuals who receive income from employment or self-employment but are not known to HMRC because they and/or their employers fail to declare their earnings. An illustrative estimate is made of the tax gap arising for these individuals.

'Moonlighters' are individuals who pay tax on their main job through PAYE, but who fail to declare earnings from a second job or additional income from self-employment.

Using a series of assumptions, it has been possible to produce illustrative estimates of the tax gap from moonlighters and ghosts. Due to the extent of the assumptions used to produce this estimate and the inherent uncertainties in the methodologies, this estimate has a large margin of error and should be treated with due caution.

Revisions

The SA tax gap has been revised upwards by £1.6 billion in 2013-14, with smaller revisions in previous years.

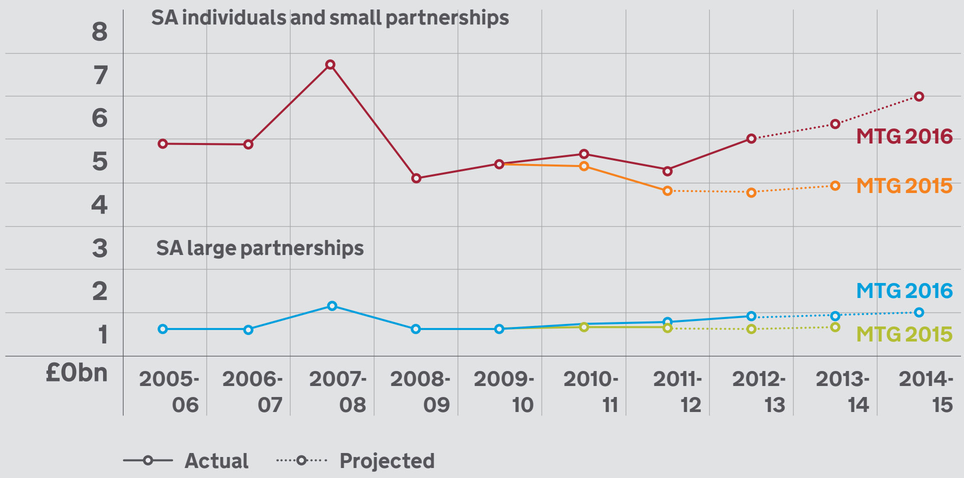
Most of the revision is driven by the latest data from random tax investigations which suggests that the scale and amount of non-compliance is higher than we had previously estimated. The revisions are within confidence intervals of previous publications.

Additional revisions have been made due to:

- stronger than predicted growth in SA tax liabilities which increases projection factors
- an improved casework management system being used to record compliance yield
- better data capture
- settlement of long running cases where we previously had to forecast the outcome
- methodological changes including smoothing of data on small partnerships due to sample sizes.

Figure 4.2 shows changes to the estimates of both the SA individuals and small and large partnerships tax gaps. In last year's publication, estimates for 2012-13 and 2013-14 were projected forward from the 2011-12 estimates using the trend in estimated total Small and Medium-Sized Enterprises Self Assessment tax liabilities. Now that actual data for 2012-13 is available, these estimates have been revised and used as the base year to project estimates for 2013-14 and 2014-15. The projection method has been improved by considering business and non-business self-assessed individuals liabilities separately.

Figure 4.2: Revisions to SA individuals and small partnerships and SA large partnerships tax gap since 'Measuring tax gaps 2015 edition'[1]



1 MTG stands for 'Measuring tax gaps

Data on small partnerships has been smoothed from 2010-11, which will lead to small revisions for all years from 2010-11 to 2013-14. This smoothing approach was introduced after reviewing the data and sampling approach used for this stratum and considering best practice for the treatment of outliers.

The 2010-11 SA individuals and small partnerships tax gap estimate has been revised upwards by £0.2 billion, from £4.4 billion in 'Measuring tax gaps 2015 edition' to £4.6 billion, due to some long-running cases settling for different amounts than expected. The revision for SA non-business is a £0.4 billion increase and for SA business is a £0.1 billion decrease.

The 2011-12 SA individuals and small partnerships tax gap estimate has been revised upwards from £3.8 billion in 'Measuring tax gaps 2015 edition' to £4.2 billion. This is split equally between business and non-business taxpayers and is mainly due to an improved casework management system being used to record compliance yield, better data capture and settlement of long-running cases.

The 2012-13 SA individuals and small partnerships tax gap estimate has been revised upwards by £1.2 billion from £3.8 billion in 'Measuring tax gaps 2015 edition' to £5.0 billion. This revision is due to using actual data rather than being projected from the 2011-12 estimate. Within this, SA business is revised upwards by £0.9 billion and SA non-business by £0.3 billion.

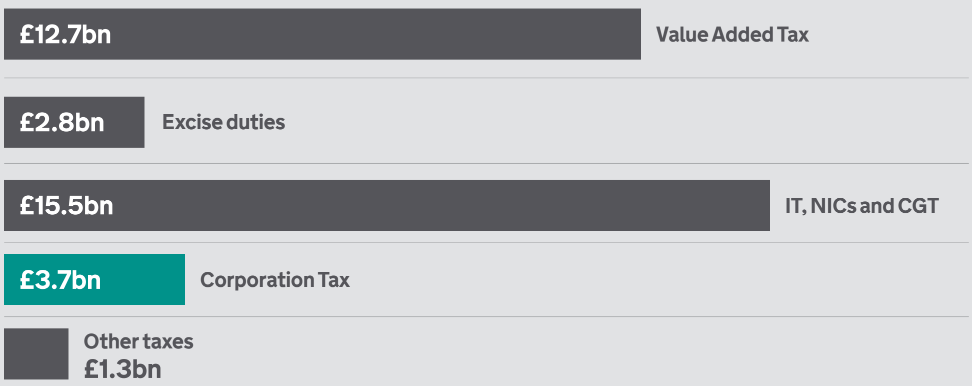
The 2013-14 SA individuals and small partnerships tax gap estimate has been revised upwards by £1.4 billion, from £3.9 billion in 'Measuring tax gap 2015 edition' to £5.3 billion. This increase is because for 'Measuring tax gaps 2015 edition' the 2013-14 figure was based on projections from the 2012-13 figure, whereas the current 2013-14 estimate is projected forward from actual random enquiry data for 2012-13. As the share of self-employed population and the economy were growing faster compared to previous years, the projections for tax gap estimate of SA individuals and small partnerships in 2013-14 are significantly higher. The upwards revision for SA business is £1.1 billion and for SA non-business it is £0.4 billion.

The SA large partnerships tax gap is an illustrative estimate, based on the findings for SA individuals and large partnerships. As these are revised upwards, the SA large partnerships estimate also increases. Since last year's publication, the SA large partnerships has been revised upwards by £0.1 billion in both 2010-11 and 2011-12 to £0.7 billion in each of these years; by £0.3 billion in 2012-13 to £0.9 billion; and by £0.2 billion in 2013-14 to £1.0 billion.

The 2013-14 SME employers estimate has risen by £0.2 billion, from £1.3 billion in 'Measuring tax gaps 2015 edition' to £1.5 billion. This was mostly due to an improved casework management system being used to record compliance yield and better data capture. A second factor was an improvement in the method of allocating non-payment data between SA and PAYE.

5. Corporation Tax

Tax gap by type of tax, 2014-15

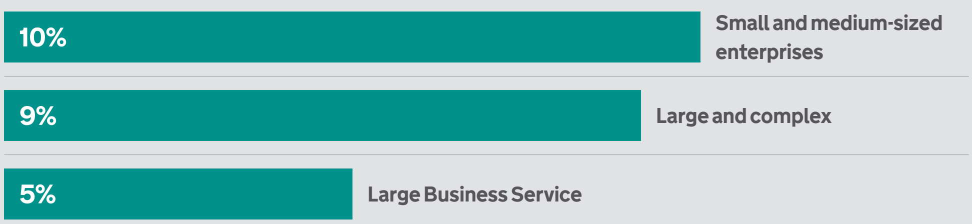


Key findings

The estimated total tax gap for Corporation Tax was £3.7 billion in 2014-15 (£3.3 billion in 2013-14). This represents 10% of the overall tax gap.

The overall Corporation Tax gap has declined from 14% in 2005-06 to 8% in 2014-15.

Components of Corporation Tax gap as a percentage of theoretical tax liabilities, 2014-15



Large businesses

In 2014-15 the Corporation Tax gap for large businesses was estimated to be 6% of their theoretical Corporation Tax liabilities. This relates to businesses managed in the Large Business Directorate in this year and in previous years in our Large Business Service and our Local Compliance Large and Complex directorates.

For businesses formerly in the Large Business Service, the Corporation Tax gap has declined from £2.9 billion in 2005-06 to £0.9 billion in 2014-15. As a proportion of estimated Corporation Tax liabilities, the Corporation Tax gap for those in the Large Business Service until 2013-14, and then in the Large Business Directorate declined from 9% to 5% over the same period.

The illustrative Corporation Tax gap for those businesses managed in the Local Compliance Large and Complex Directorate until the creation of the Large Business Directorate in 2014-15 is 9% of theoretical liabilities in 2014-15 (£0.7 billion).

Corporate small and medium-sized enterprises

The Corporation Tax gap for small and medium-sized enterprises is estimated to be £2.2 billion in 2014-15, which is equivalent to 10% of small and medium-sized enterprises theoretical Corporation Tax liabilities.

The percentage tax gap for small and medium-sized enterprises declined from 19% in 2005-06 to 10% in 2014-15.

The proportion of small and medium-sized enterprises submitting an incorrect return leading to a loss of tax declined from 41% in 2005-06 to 21% in 2013-14. This is the latest year of findings from the random enquiry programme.

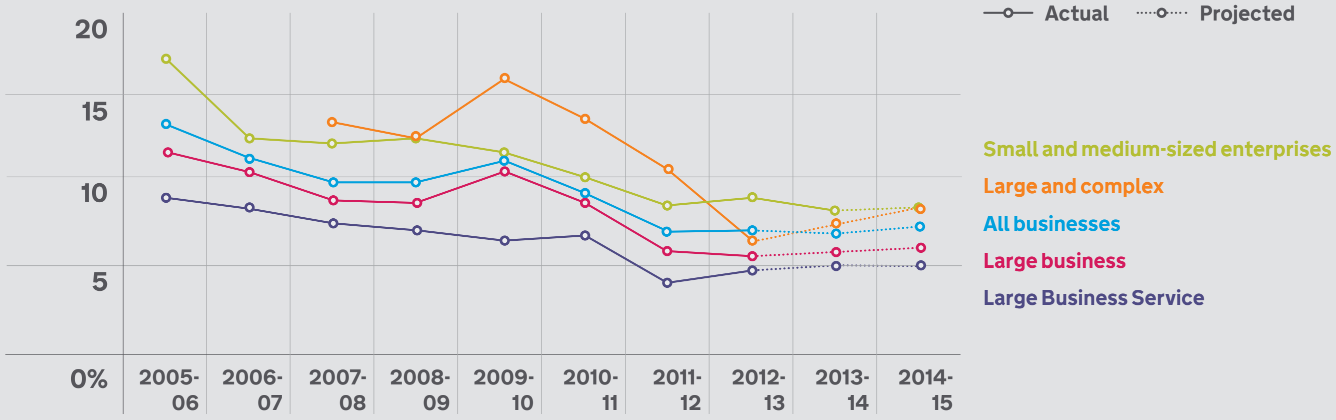
Results and tables

Large Business Service

The tax gap for Corporation Tax (CT) is estimated separately for large business and small and medium-sized enterprises. For the period up to 2013-14 the tax affairs of large businesses were managed by two directorates: the Large Business Service (LBS) and Local Compliance Large and Complex (L&C). The LBS handled the largest businesses, approximately 800 groups, and L&C oversaw a much larger number of comparatively smaller businesses, approximately 9,500. Data to 2012-13 which is on the LBS and L&C basis is used to project 2013-14 and 2014-15 estimates. In Chapter 1, estimates for LBS and L&C are combined under the heading ‘Large businesses’. In April 2014 a Large Business Directorate was formed to manage the tax compliance of the UK’s 2,100 largest businesses.

Figure 5.1 shows that the CT gap estimate as a proportion of total theoretical CT liabilities has declined from 14% in 2005-06 to 8% in 2014-15. The overall trend masks some differences in the estimate between businesses of different sizes. Businesses managed by LBS have a lower percentage tax gap compared with smaller businesses, perhaps due to the scrutiny of customer relationship managers who closely monitor the largest businesses. Given that the L&C CT gap estimate is derived from an experimental methodology, care should be taken when interpreting the L&C CT gap estimate.

Figure 5.1: Corporation Tax gap



The CT gap estimates for businesses formerly managed in the LBS for 2014-15 are taken from our operational data relating to accounting periods (APs) ending in 2012-13 (the latest year of available information). The estimates are based on tax under consideration: this is not tax owed or unpaid - it is a guide to help managers to better direct resources in order to produce the best results. The 2012-13 estimate of the LBS CT gap is £1.0 billion, which is higher than the estimate for 2011-12 (£0.9 billion). As in previous years, nearly all the LBS CT gap arises from avoidance risks (see Table 5.1). We have reviewed and improved the categorisation of international risks challengeable under the UK law, additional risks are now included under the avoidance risk category.

Table 5.1 shows estimates of the LBS CT gap for accounting periods ending in 2005-06 to 2012-13 as at June 2016 and projected estimates for 2013-14 and 2014-15. Projections for the latest two years are based on the change in the CT receipts of LBS groups. Using tax receipts ensures that the projections reflect changes to CT rates and taxable profits and assumes a stable level of underlying compliance. Overall there is a steady reduction in the LBS CT gap by value and as a percentage of theoretical tax liabilities.

Table 5.1: Estimated Large Business Service Corporation Tax gap (£ billion)

	2005-06	2009-10	2010-11	2011-12	2012-13	2013-14[1]	2014-15[1]
Total tax under consideration[2,3,4]	7.1	6.5	7.0	6.6	5.5	-	-
Technical risks not subject to litigation	2.3	3.4	3.6	4.3	3.4	-	-
Avoidance risks or technical risks subject to litigation	4.4	2.8	3.2	2.1	2.0	-	-
Uplift factor[5]	0.3	0.3	0.3	0.1	0.1	-	-
Compliance yield[6]	1.9	1.7	1.6	1.3	1.1	-	-
Tax gap[7]	**2.9**	**1.4**	**1.8**	**0.9**	**1.0**	**0.9**	**0.9**
Avoidance risks	2.2	1.1	1.4	0.8	0.7	0.6	0.6
Technical risks subject to litigation	0.4	0.05	0.09	0.06	0.19	0.17	0.17
Uplift factor	0.3	0.3	0.3	0.1	0.1	0.1	0.1
Total theoretical tax liabilities[8]	31.8	21.5	25.6	23.2	19.6	16.9	16.8
Tax gap as a proportion of liabilities	**9%**	**7%**	**7%**	**4%**	**5%**	**5%**	**5%**

1 Tax gap estimates for 2013-14 and 2014-15 are projected based on the trend in CT receipts for LBS groups.
2 Estimates include both risks that are being worked (open) and risks that have been settled (closed) - see Table 5.2.
3 Tax under consideration is defined in the glossary.
4 Figures may not appear to sum due to rounding.
5 All risks may not be identified. An uplift factor has been estimated to correct for this under-estimation based on information from Large Business Task Force.
6 Compliance yield is the total yield from closed avoidance or litigated technical risks plus the estimated compliance yield from open avoidance risks and technical risks in litigation. Compliance yield in this table relates to a specific AP and therefore cannot be compared to reported compliance yield.
7 Tax gap is tax under consideration on avoidance risks and technical risks subject to litigation plus uplift factor minus compliance yield. This includes tax gap from risks identified or recorded in subsequent APs.
8 Total theoretical tax liabilities is the estimated CT liabilities from LBS groups plus the tax under consideration on avoidance risks and technical risks subject to litigation.

A full time series for tables is available on our website
www.gov.uk/government/statistics/measuring-tax-gaps-tables

Table 5.2 shows the number and average value of risks from 2005-06 to 2012-13. Although the broad trends have not changed, the total number of risks from 2008-09 onwards are not comparable to the number of risks before 2008-09 due to a methodological change (see 'Methodology and data issues').

The overall results suggest a general shift in the types of risks being dealt with by LBS; from avoidance risks and technical risks subject to litigation to technical risks not subject to litigation. Results for individual years are subject to an element of fluctuation and may be unduly influenced by individual cases.

Table 5.2: Corporation Tax risks for Large Business Service groups

	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13
Total number of risks[1,2]	**1,940**	**1,475**	**1,245**	**830**	**660**	**670**	**755**	**650**
Technical risks not subject to litigation	1,390	1,010	875	615	485	495	640	575
Avoidance risks or technical risks subject to litigation	550	460	370	215	175	180	115	75
Average tax under consideration from all risks (£ million)[3]	**3.3**	**4.7**	**5.3**	**6.9**	**9.4**	**10.1**	**8.5**	**8.3**
Technical risks not subject to litigation	1.7	2.8	4.0	4.4	7.0	7.3	6.7	6.0
Avoidance risks or technical risks subject to litigation	7.3	9.0	8.3	12.9	14.1	15.2	15.0	19.9
Percentage of risks closed (%)	**96%**	**95%**	**90%**	**91%**	**87%**	**76%**	**64%**	**51%**
Percentage of tax under consideration closed (%)	**92%**	**92%**	**76%**	**79%**	**53%**	**74%**	**54%**	**31%**

1 Risks may span more than one accounting period (AP), but are capped at five APs from the 2008-09 estimates.
2 Numbers rounded to the nearest 5. As a result numbers may not appear to sum due to rounding.
3 The average value of each risk is calculated using the estimates before the adjustment for risks recorded in future APs. The adjustments increase the tax under consideration but not the number of risks.

Large and complex businesses

The estimates of the Corporation Tax (CT) gap among Large and Complex (L&C) businesses were £0.5 billion for 2013-14 and £0.7 billion for 2014-15 (see Table 5.3). Tax gap estimates for businesses dealt with by L&C remain illustrative as it is difficult to estimate the tax gap from existing data sources and they are estimated using an experimental methodology. Our operational data on L&C businesses relates to tax risks identified through risk assessment and are not representative of the risks in the wider population. Operational data cannot be used to draw inferences about rates of non-compliance for all L&C businesses. This is unlike the SME CT gap estimates, based on data from the random enquiry programme, and LBS businesses, where close scrutiny of every business means that most risks are identified.

Table 5.3: Estimated Large and Complex Corporation Tax gap (£ billion)[1]

	2007-08	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15
Estimated tax at risk	1.6	1.7	1.4	1.4	1.1	1.1	1.2
Compliance yield	0.6	0.6	0.6	0.7	0.8	0.7	0.6
Non-payment	0.1	0.2	0.2	0.1	0.2	0.1	0.1
Tax gap	**1.1**	**1.3**	**1.0**	**0.8**	**0.5**	**0.5**	**0.7**
Total theoretical tax liabilities[2]	8.1	8.2	7.2	7.8	7.1	7.1	7.6
Tax gap as a proportion of theoretical tax liabilities	**14%**	**16%**	**14%**	**11%**	**7%**	**8%**	**9%**

1 Figures may not appear to sum due to rounding.
2 Total theoretical tax liabilities is the estimated Corporation Tax liabilities from L&C businesses plus the estimated tax gap.

A full time series for tables is available on our website
www.gov.uk/government/statistics/measuring-tax-gaps-tables

Small and medium-sized enterprises

Tax gap estimates from incorrect returns are taken from the CT random enquiry programme (REP) and data on compliance yield and non-payment. Incorrect tax returns are those found by our enquiries to have under-declared tax liability. This could be as a result of error, failure to take reasonable care or evasion. The REP covers small and medium-sized enterprises, known as SMEs, which in this context means those businesses not managed by the LBS or L&C, and is broadly in line with the EU definition of SME.

Table 5.4 shows estimated tax gaps for businesses with accounting periods ending in financial years 2005-06 to 2014-15. The projected CT gap for SMEs was £2.2 billion in 2014-15. The latest REP data used is for the 2013-14 financial year, with the estimate for 2014-15 based on a projection of the year-on-year change in estimated total SME CT liabilities. The percentage tax gap has declined from 19% in 2005-06 to 10% in 2014-15.

Table 5.4: Estimated small and medium-sized enterprises Corporation Tax gap (£ billion)[1]

	2005-06	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15[2]
Under-declared liabilities due to incorrect returns[3]							
Upper estimate	5.0	3.3	2.7	2.6	2.8	3.1	3.5
Central estimate	2.5	1.5	1.4	1.4	1.6	1.7	1.9
Lower estimate	1.3	0.7	0.6	0.7	0.8	0.8	1.0
Compliance yield[4]	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Non-payment	0.2	0.5	0.5	0.4	0.4	0.3	0.4
Total tax gap[5]							
Upper estimate	5.0	3.7	3.0	2.9	3.2	3.2	3.8
Central estimate	**2.6**	**1.9**	**1.7**	**1.7**	**1.9**	**1.8**	**2.2**
Lower estimate	1.3	1.1	1.0	0.9	1.1	1.0	1.3
Total theoretical tax liabilities	13.6	15.1	17.0	17.2	18.4	20.0	22.9
Proportion of theoretical tax liabilities	**19%**	**13%**	**10%**	**10%**	**10%**	**9%**	**10%**

1 Figures rounded to the nearest £0.1 billion. As a result components may not appear to sum.
2 Projection factor applied to gross tax gap estimate for 2013-14 to produce projected estimate for 2014-15. This is based on the trend in estimated total SME Corporation Tax liabilities.
3 Ranges for under-declared liabilities are 95% confidence intervals.
4 By period of settlement of enquiry.
5 Includes avoidance estimates.

A full time series for tables is available on our website
www.gov.uk/government/statistics/measuring-tax-gaps-tables

Table 5.5 shows that between the years 2005-06 to 2013-14, the proportion of SMEs submitting an incorrect CT return leading to a loss of tax declined from 41% to 21%. These figures may be revised in the future due to a small number of cases which have not yet settled.

The proportion of businesses which had annualised additional liability of more than £1,000 declined from 19% in 2005-06 to 14% in 2013-14. The proportion of businesses which had annualised additional liability up to £1,000 fell from 22% in 2005-06 to 7% in 2014-15. The decline in annualised additional liability up to £1,000 has been much greater than the decline in annualised additional liabilities over £1,000 over the period. In 2013-14, the structure of the sample changed to a stratified sample based on turnover, which contributed to the identification of higher yielding cases. See the 'Methodological annex' for more detail.

Table 5.5: Proportion of SMEs with incorrect Corporation Tax returns where additional liability established[1]

	2005-06	2009-10	2010-11	2011-12	2012-13	2013-14
Proportion of SMEs	41%	24%	24%	22%	23%	21%
of which, size of additional liability						
£1 to £1,000	*22%*	*10%*	*13%*	*11%*	*11%*	*7%*
over £1,000	*19%*	*13%*	*12%*	*11%*	*12%*	*14%*

1 Figures rounded to the nearest 1%. As a result components may not appear to sum.

A full time series for tables is available on our website
www.gov.uk/government/statistics/measuring-tax-gaps-tables

Avoidance

The CT avoidance tax gap of £0.9 billion for 2014-15 is estimated separately for LBS businesses (£0.7 billion), L&C businesses (£0.1 billion) and for SMEs (£0.1 billion).

Methodology and data issues

Large Business Service

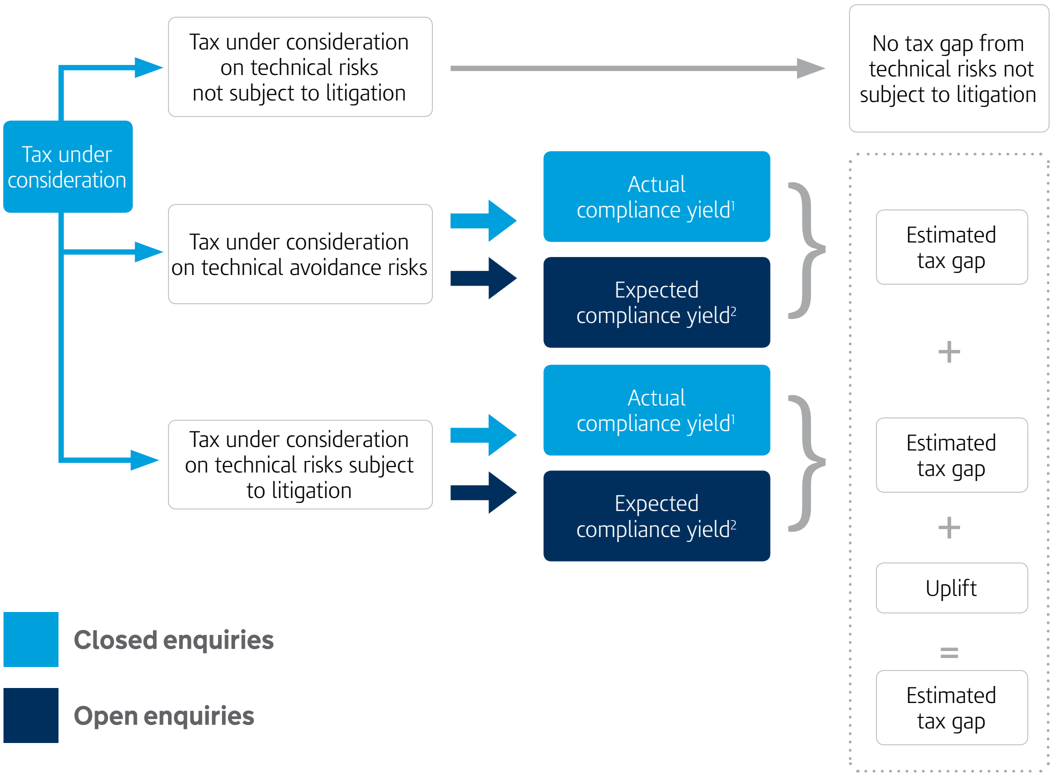
Estimates of the LBS CT gap come from information on our case management system. Where our tax specialists identify risks for further consideration, an initial estimate of the tax associated with these risks is recorded on the system as the tax under consideration.

The LBS case management system allows the classification of risks into two broad categories; avoidance and technical risks. The avoidance category relates to the use of disclosed avoidance schemes and other suspected avoidance identified by our 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.

This year we have reviewed and improved the categorisation of international risks challengeable under the UK law, these are now included in the tax gap under the avoidance risk category. This has only been possible from 2008-09 onwards due to data limitations (See 'Methodological annex' for more information).

The tax gap is calculated as tax under consideration minus the total actual and expected compliance yield for avoidance risks and for technical risks subject to litigation. The risks will be worked until resolution in line with our litigation and settlement strategy. There is no net tax gap on technical risks settled by agreement. The flowchart at Figure 5.2 shows the process for arriving at the tax gap estimate.

Figure 5.2: The process for estimating the Corporation Tax gap for LBS groups by category



Estimated tax gap = Tax under consideration – (actual + expected yield) + uplift

1 Actual compliance yield refers to closed risks only.
2 Expected compliance yield refers to forecast yield from open risks.

Identified risks can take a number of years to resolve. For open enquiries, it is necessary to estimate the expected compliance yield to calculate the tax gap. Differences between the estimated and actual compliance yield will lead to revised tax gap estimates in subsequent publications. Table 5.2 shows the proportion of risks that have closed from accounting periods ending in 2005-06 to 2012-13. The tax gap for more recent years is likely to be subject to larger revisions as a higher proportion of the compliance yield is estimated.

Risks may also take a number of years to identify, so new risks for the accounting periods presented may be identified in subsequent accounting periods. Analysis of past data is used to estimate an appropriate increase to the tax under consideration to reflect the additional risks that are expected to be identified at a later point. Additional tax under consideration may result in additional tax gap. Larger adjustments to tax under consideration are made to recent accounting periods than to older accounting periods.

Risks can relate to a number of accounting periods. Tax under consideration is allocated to the appropriate year using data from the case management system. There was a small change to the approach used to allocate tax under consideration three years ago in order to simplify the process. Although this has a minimal impact on the overall tax gap estimates, the number of risks from 2008-09 are estimated on a different basis so should not be compared to earlier years (see 'Methodological annex' for more information).

HMRC has always acknowledged that it may not identify every risk and this has previously led to an underestimation of the tax gap. Since last year we have evidence from the Large Business Risk Task Force created following the Chancellor's Autumn Statement in 2012. The additional risks identified by the Large Business Risk Task Force has allowed us to derive an uplift for unidentified risks.

LBS reports compliance yield on a year of settlement basis, whereas the tax gap estimates are based on a financial year accounting period basis. For tax gap purposes only, compliance yield is calculated as the total yield from closed avoidance or litigated technical risks relating to that accounting period plus the estimated compliance yield from open avoidance risks and technical risks in litigation.

As it can take many years to close every risk identified in a particular year, the yield expected from open cases must be forecast to be able to produce estimates of the overall tax gap. Differences between forecast yield and actual yield may lead to some degree of error, and as such, estimates are provisional until every risk is closed.

These estimates will be subject to further revision as more data becomes available and methodological improvements are implemented.

Large and complex businesses

The illustrative estimate of the L&C CT gap is produced by assuming that the tax at risk will represent a similar proportion of liabilities to LBS businesses. Applying this assumption to the L&C CT liabilities data produces an estimate of the tax at risk for L&C businesses for each year. The 2012-13 estimate is projected to 2013-14 and 2014-15 based on the trend in L&C CT liabilities. This produces estimates of tax at risk for 2013-14 and 2014-15, from which compliance yield is subtracted and an estimate of losses from non-payment is added. Compliance yield is a smaller proportion of the tax at risk in L&C businesses, so the percentage tax gap is higher.

Small and medium-sized enterprises

The Corporation Tax random enquiry programme (REP) allows HMRC to estimate the extent of under-declaration of liabilities arising from the submission of incorrect CT returns. The random sample used for the programme is selected from SMEs issued with a notice to file a CT return.

Enquiries are taken up into the sampled returns. The results are then applied to the general population to produce estimates of non-compliance.

As enquiries can take a number of years to settle, it is necessary to make assumptions about any enquiries that are still open at the time of analysis. This means figures are subject to revision until all enquiries are settled. Estimates have been revised since the previous publication to include information on the outcomes of late settling enquiries.

The latest year of REP data used relates to 2013-14, with estimates for 2014-15 projected in line with the trend in estimated total SME CT liabilities.

Due to the small sample sizes and large natural variance in the levels of under-declared tax liabilities due to incorrect returns from year to year, an adjusted method for producing a time series of CT SME net tax gap estimates is used. This method is based on rolling three-year averages of the annualised under-declared tax liabilities for non-compliant cases (cases where additional tax liability has been established) for the previous two years, combined with the overall actual proportion of non-compliance within the random enquiries for the year in question.

Based on US research, a multiplier is applied to account for non-detected non-compliance. Compliance yield is then subtracted, and estimates for losses from non-payment and SME CT avoidance added.

Avoidance

The LBS avoidance estimate is derived from the LBS case management system that includes additional data on tax under consideration split into related tax years. The estimates for L&C and SMEs are produced by applying the methodology used to estimate the IT, NICs and CGT tax gap to HMRC's risk register data of avoidance schemes relating to CT. A small adjustment is applied to the LBS and L&C estimates to account for risks that are expected to be identified in subsequent years.

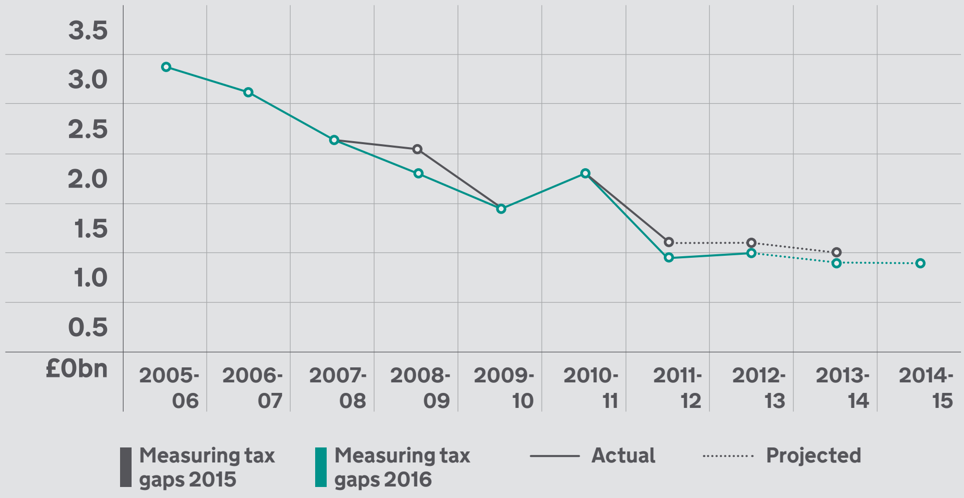
Revisions

Large Business Service

Tax gap estimates for accounting periods ending between 2008-09 and 2011-12 have been revised since 'Measuring tax gaps 2015 edition' to account for the latest data available (see Table 5.1). Minor changes result because a more recent snapshot of the data is used each year. For example, the 2011-12 estimate of the tax gap was £1.1 billion using the July 2015 snapshot and £0.9 billion using the June 2016 snapshot. Where time has elapsed between data snapshots, differences between the initial and latest tax gap estimates are expected for the following reasons:

- More risks may be found, leading to additional tax under consideration in any category.
- A larger proportion of the tax gap estimate will be based on actual yield numbers, replacing the values previously forecast.
- Our judgment on the tax under consideration of a risk or its classification as avoidance or technical may change where better information has emerged.
- This year we have improved our coverage of avoidance risks after reviewing the categorisation of international risks challengeable under UK law. These are now included in the tax gap under the avoidance risk category.

Figure 5.3: Revisions to Large Business Service Corporation Tax gap since 'Measuring tax gaps 2015 edition'



The estimates for 2012-13 and 2013-14 published in 'Measuring tax gaps 2015 edition' were projected based on the trend in Corporation Tax receipts for LBS groups. The estimates for 2013-14 and 2014-15 published in 'Measuring tax gaps 2016 edition' is projected based on the trend in Corporation Tax receipts for LBS.

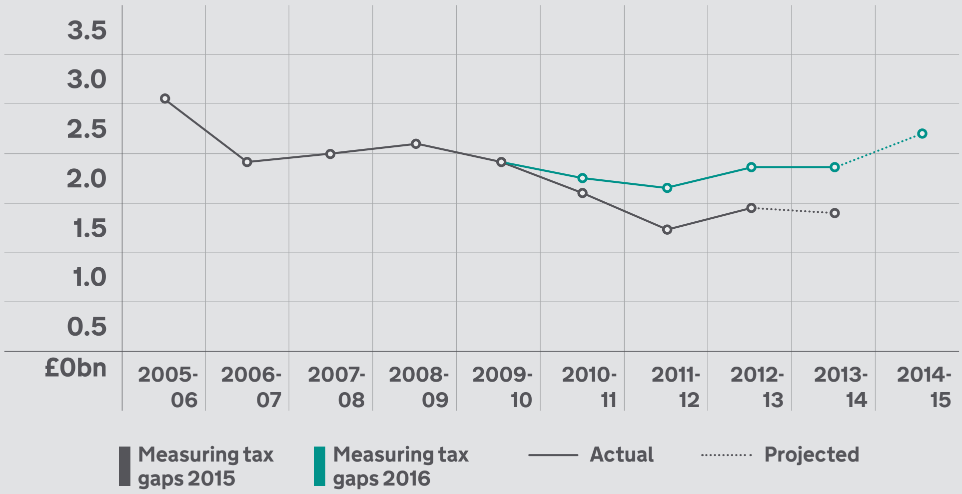
Large and complex businesses

The 2013-14 L&C CT tax gap, estimated to be £0.6 billion in 'Measuring tax gaps 2015 edition', has been revised to £0.5 billion this year. The reduction in the previous estimate is due to a lower estimate for 2012-13, which is used to project the estimate for 2013-14 and 2014-15.

Small and medium-sized enterprises

Tax gap estimates for CT SME have been revised since the publication of 'Measuring tax gaps 2015 edition'. Most of the revisions are driven by an improved casework management system being used to record compliance yield, better data capture and replacing projections with actual data. Additional revisions are driven by the latest data from random tax investigations which suggests that the scale and amount of non-compliance is higher than we had previously estimated. The revisions are within confidence intervals of previous publications. These revisions are shown in Fig 5.4.

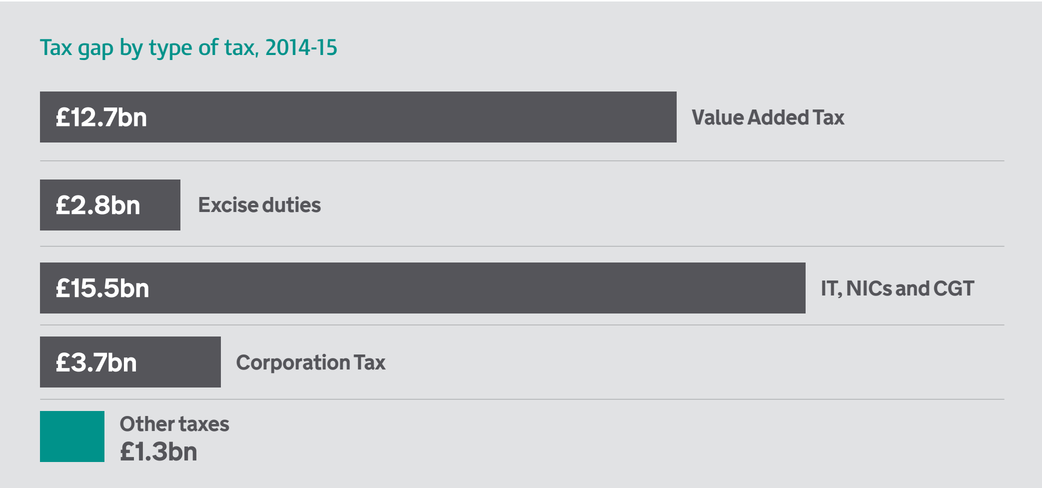
Figure 5.4: Revisions to small and medium-sized enterprises Corporation Tax gap since 'Measuring tax gaps 2015 edition'



The estimates for 2011-12 and 2012-13 have both been revised up by £0.4 billion from what was published in 'Measuring tax gaps 2015 edition'. This was caused by an improved casework management system being used to record compliance yield, better data capture and the settlement of long-running cases, which we previously had to forecast.

The estimate of £1.8 billion for 2013-14 has been revised up by £0.5 billion from what was published in last year's publication. The latest estimate for this year is based on actual Corporation Tax random enquiry programme data rather than a projection.

6. Other taxes



Key findings

The tax gap for Stamp Duty Land Tax was £150 million.

The illustrative tax gap for Stamp Duty Reserve Tax was £30 million.

The illustrative tax gap for Inheritance Tax was £475 million.

The illustrative tax gap for Petroleum Revenue Tax in 2014-15 was less than £10 million.

The illustrative tax gap for the other indirect taxes was £600 million (of which the Landfill Tax gap was £150 million).

This chapter describes how the tax gap has been estimated for components not covered elsewhere.

A 'direct' tax is imposed on a person or a business, as opposed to an 'indirect' tax which is imposed on a transaction. All estimates are illustrative except for the Stamp Duty Land Tax gap, which is based on an established methodology.

Estimates of the Landfill Tax gap have been shown separately in Table 6.1 below, whereas in previous Measuring tax gaps editions only total other indirect tax estimates were shown. A new methodology was developed to form these Landfill Tax gap estimates. The methodology does not include an amount for waste disposed of at illegal waste sites as it is not taxable at this point.

The methodological annex is available on our website
www.gov.uk/government/statistics/measuring-tax-gaps

Table 6.1 Other direct and indirect tax gaps (£ billion)[1]

		2005-06	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15
Direct								
Stamp duties	Stamp Duty Land Tax	0.250	0.150	0.200	0.200	0.150	0.125	0.150
	Stamp Duty Reserve Tax	0.030	0.030	0.030	0.030	0.020	0.030	0.030
	Total	**0.300**	**0.200**	**0.200**	**0.200**	**0.200**	**0.200**	**0.200**
Other direct taxes	Inheritance Tax	0.150	0.275	0.275	0.350	0.400	0.400	0.475
	Petroleum Revenue Tax	0.040	0.020	0.030	0.040	0.040	0.020	<0.010
	Total	**0.200**	**0.300**	**0.300**	**0.400**	**0.400**	**0.400**	**0.500**
Indirect[2]								
	Landfill Tax	0.020	0.050	0.040	0.075	0.075	0.100	0.150
	Other indirect taxes[3]	0.500	0.500	0.450	0.400	0.400	0.425	0.450
	Total	**0.500**	**0.500**	**0.500**	**0.500**	**0.500**	**0.500**	**0.600**
Total other direct and indirect		**1.000**	**1.000**	**1.000**	**1.100**	**1.100**	**1.100**	**1.300**

1 Totals are rounded to the nearest £100 million. Estimates for specific taxes are rounded to the nearest £25 million, or the nearest £10 million if they are below £50 million. As a result components may not appear to sum to totals.
2 In previous editions of Measuring tax gaps, Indirect taxes in the table above included other excise duties (betting and gaming, cider and perry, spirits based ready-to-drinks), which are now included in Chapter 3: Excise.
3 Other indirect taxes are Aggregates Levy, Air Passenger Duty, Climate Change Levy, Custom duties and levies Insurance and Premium Tax.

The methodological annex is available on our website
www.gov.uk/government/collections/measuring-tax-gaps

Methodology and data issues

Stamp taxes

The Stamp Duty Land Tax gap is estimated using a combination of management information and management assumptions. The estimate includes both commercial and residential property and land transactions.

The methodological annex is available on our website
www.gov.uk/government/statistics/measuring-tax-gaps

The Stamp Duty Land tax gap estimate for 2013-14 reported in 'Measuring tax gaps 2015 edition' was based solely on assumptions. A review of these assumptions and using updated management information, has led to a revision to the 2013-14 estimate. 2014-15 estimates are formed on the same basis as 2013-14.

Stamp Duty Reserve Tax is a tax largely collected at source through the CREST computer system (the London Stock Exchange's electronic share settlement system) making the risk of non-compliance very low.

An illustrative estimate of the tax gap for Stamp Duty Reserve Tax has been produced using the assumption that the tax under consideration is approximately 1% of receipts. This results in an estimate of the tax gap for Stamp Duty Reserve Tax of £30 million for 2014-15.

Inheritance Tax

This is an illustrative estimate based on assumptions. The gross tax gap is estimated by risk categories including omitted assets and agricultural and business reliefs. Compliance yield figures are subtracted from the gross tax gap to estimate the net tax gap.

Petroleum Revenue Tax

An illustrative indicator of the tax gap from Petroleum Revenue Tax has been produced using the expert opinion of Petroleum Revenue Tax specialists. Given the narrowly-defined base of the tax (limited to oil-producing fields developed before April 1993) and the small number of businesses involved, a range of between 1% and 3% of theoretical tax liabilities has been used to calculate an illustrative tax gap. This produces an estimate of less than £10 million in 2014-15.

Other indirect taxes

Estimates of the Landfill Tax gap have been shown separately for the first time in 'Measuring tax gaps 2016 edition', whereas in previous Measuring tax gaps editions only total other indirect tax estimates were shown.

Tax gaps for other indirect taxes are formed by estimating the average percentage of tax gaps for similar taxes each year and multiplying this by total theoretical tax liabilities for the relevant taxes.

The average percentage revenue losses should not be considered estimates of the true percentage loss for each of the taxes listed in Table 6.1. Many of the indirect taxes listed are very different from one another in their nature, each being subject to different rules. The true percentage tax gaps are therefore likely to vary widely across the various taxes listed.

Landfill Tax

For the first time a separate Landfill Tax gap estimate has been produced. Previously Landfill Tax gap was included in other indirect tax gap estimates.

The level of Landfill Tax losses is measured by comparing the net Landfill Tax theoretical liability with actual Landfill Tax receipts. The difference between these amounts is the Landfill Tax gap.

The net theoretical Landfill Tax liability has been produced using a combination of modelling, proxy indicators and tax professional expertise. It takes account of estimates for waste legitimately diverted away from landfill, versus unexpected shortfalls in revenue. The methodology does not include an amount for waste disposed of at illegal waste sites as it is not taxable at this point.

The methodological annex is available on our website
www.gov.uk/government/statistics/measuring-tax-gaps

Glossary

Accounting period	The period for which a business prepares its accounts and in respect of which a Corporation Tax assessment is raised. It cannot be more than 12 months in length, although it can be shorter.
Central estimate	The most likely estimate of the true value.
Compliance activity	An intervention by HMRC, such as a direct tax enquiry, employer compliance review or VAT assurance visit, designed to ensure that the correct amount of tax is being accounted for and paid.
Compliance yield	Additional tax charged, resulting from compliance activity.
Confidence interval	A range of values that has a specified probability of containing the true value of interest.
Cross-border shopping	Legal importation of goods for personal use.
Estimate	Approximate result calculated from approximate or incomplete data.
Fraud	Deliberate, dishonest evasion of tax.
Gross Domestic Product	The market value of all final goods and services made within a country in a year.
Illicit market	The part of the market on which due taxes and duties have not been paid.
Legitimate consumption	Consumption of goods for which the correct duty has been paid.
Liechtenstein Disclosure Facility	This allows people with unpaid tax linked to investments or assets in Liechtenstein to settle their tax liability under this special arrangement. It runs until 5 April 2016.
Litigation	A lawsuit seeking a legal remedy to a question or dispute.
Lower estimate	The value below which the true value will not lie.
Mid-point	Average of the upper and lower estimates.
Non-payment	Tax debts that are identified but never paid off. Eventually this debt will be written off by HMRC as uncollectable.
Non-UK duty paid	Any product that has not had UK duty paid on it.
Official Statistics	All statistics produced by the Office for National Statistics, government departments, the Devolved Administrations and other Crown bodies are automatically deemed to be Official Statistics.
PAYE scheme	Each employer operating PAYE registers a PAYE scheme with HMRC, which allows for the issue and monitoring of returns.

Real Time Information	Real Time Information was introduced in April 2013 and requires all UK employers to tell HMRC of their liability to PAYE at or before the point they make payments to their employees, i.e. around each payroll run. Previously employers paid on account monthly and reported actual liabilities annually.
Risk register	A list of identified tax risks, together with information such as estimated value, nature and status. Registers are used to track and monitor the risks they cover.
Self Assessment	A system for reporting income and capital gains to, and claiming tax allowances from, HMRC.
Settlement	Closure of a direct tax enquiry, resulting in the agreement of any additional tax liability.
Small and medium-sized enterprises	HMRC uses the EU definition of SME for consistency with previous editions of 'Measuring tax gaps' and for international comparisons. This covers businesses with up to 250 employees and either a balance sheet total of up to €43m or turnover of up to €50m.
Smuggling	In this document this covers all activity that results in goods entering the UK market without the correct duty being paid.
Stamp Duty Reserve Tax	Stamp Duty Reserve Tax is a tax on shares and securities when you buy through the stock market or a stock broker.
Tax under consideration	The tax under consideration is an estimate of the maximum potential additional tax liability in each case before we have carried out a full investigation of the specific facts or analysis of relevant law. It is not actual tax either owed or unpaid, it is a tool to guide our enquiries to focus on the most significant risks that exist at any particular time with the largest businesses. In many cases, when we have looked at the full facts it becomes clear that there is some lesser liability or even no further liability at all. Tax under consideration will naturally vary from time to time as outstanding issues are settled and new risks are identified. The total is just a snapshot of work in progress and will naturally fluctuate as risks are settled and new ones taken up.
Upper estimate	The value above which the true value will not lie.
Write-offs	Debts that are considered to be irrecoverable.

Abbreviations

AP	Accounting period
BEPS	Base erosion and profit shifting
CGT	Capital Gains Tax
CT	Corporation Tax
EC	Employer compliance
ESA10	European System of Accounts
EU	European Union
GB	Great Britain
GDP	Gross Domestic Product
HMRC	Her Majesty's Revenue & Customs
ISA	Individual Savings Account
IRS	Internal Revenue Service (United States)
IT	Income Tax
L&C	Large and Complex
LBRT	Large Business Risk Task Force
LBS	Large Business Service
LCF	Living Costs and Food Survey
MTIC	Missing trader intra-community fraud
NI	Northern Ireland
NICs	National Insurance Contributions
OECD	Organisation for Economic Cooperation and Development
ONS	Office for National Statistics
PAYE	Pay As You Earn
PRT	Petroleum Revenue Tax
REP	Random enquiry programme
RoI	Republic of Ireland
RTI	Real Time Information
SA	Self Assessment
SDLT	Stamp Duty Land Tax
SDRT	Stamp Duty Reserve Tax
SME	Small and medium-sized enterprise
UK	United Kingdom
VAT	Value Added Tax
VTTL	VAT total theoretical liability

Index of tables and figures

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