Estimation of tax gap for direct taxes

KAI Analysis 8 – Compliance Strategy
01/04/05

Tax Gap Analysis for Direct Taxes

1.   Introduction

1.1   This paper provides provisional estimates of the UK direct taxes gap and discusses the methods used to arrive at these. This is the first paper of this type produced by UK direct tax authorities and will be revised as new information becomes available.

1.2   It is important at the start to emphasise the primary reason for attempting to quantify the tax gap. This is to inform policy and to help the formulation of strategies to reduce the tax gap. This approach accords with the OECD view that "The prime reasons for measuring compliance are first to identify areas and levels of non-compliance and secondly to evaluate the effectiveness of strategies used to address the identified areas of non-compliance."[1] This analysis has been undertaken in that spirit and provides a tool for assessing areas, types and levels of non-compliance within the UK direct tax system.

2.   Key terms relating to "tax gap" analysis

2.1   In broad terms the *tax gap* is the difference between the theoretical liability arising from a given level of economic activity and the amount of tax actually collected. The theoretical liability is the amount due to the Exchequer assuming all individuals and companies complied with the letter and spirit of the law.

2.2   Of this theoretical liability a considerable amount of tax will come in through voluntary compliance. The difference between the theoretical and the amount raised through voluntary compliance is the *gross tax gap*, and provides a measure of the amount of non-compliance taking place.

2.3   This *gross tax gap* thus comprises avoidance and general non-compliance. *General non-compliance* is the difference between the amount of tax due to the Exchequer if taxpayers complied with the letter of the law and the amount of tax collected through voluntary compliance. General non-compliance therefore includes evasion, error (taxpayer and departmental), failure to notify, and non-payment.

2.4   The *gross tax gap* does not include the cost to the exchequer of legitimate tax planning or the specific reliefs and allowances granted by Parliament.

2.5   Some of this *gross tax gap* will be recovered through compliance and enforcement activity. So the *net tax gap* is the *gross tax gap* minus the amount recovered through compliance activity and enforcement activity.

2.6   The discussion so far has ignored the timing of liabilities and payments. Liabilities arising in one tax year are sometimes paid late. Since taxpayers have an obligation to pay on time we reflect this by enlarging our definition of the *tax gap* by

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[1] GAP004 Compliance Measurement - Amended 4 April 2001
[1] 2nd draft, 11 May 2004

including late payment of tax due in that year. On the other hand we include in the amount recovered in a year voluntary payment of tax due from earlier periods.

2.7 So our final definition of the *net tax gap* is the *gross tax gap* (including late payment) minus the amount recovered through both compliance/enforcement activity and voluntary payment of tax due in earlier periods. This is illustrated in figure 2.1 below.

Figure 2.1: Explanation of the net tax gap
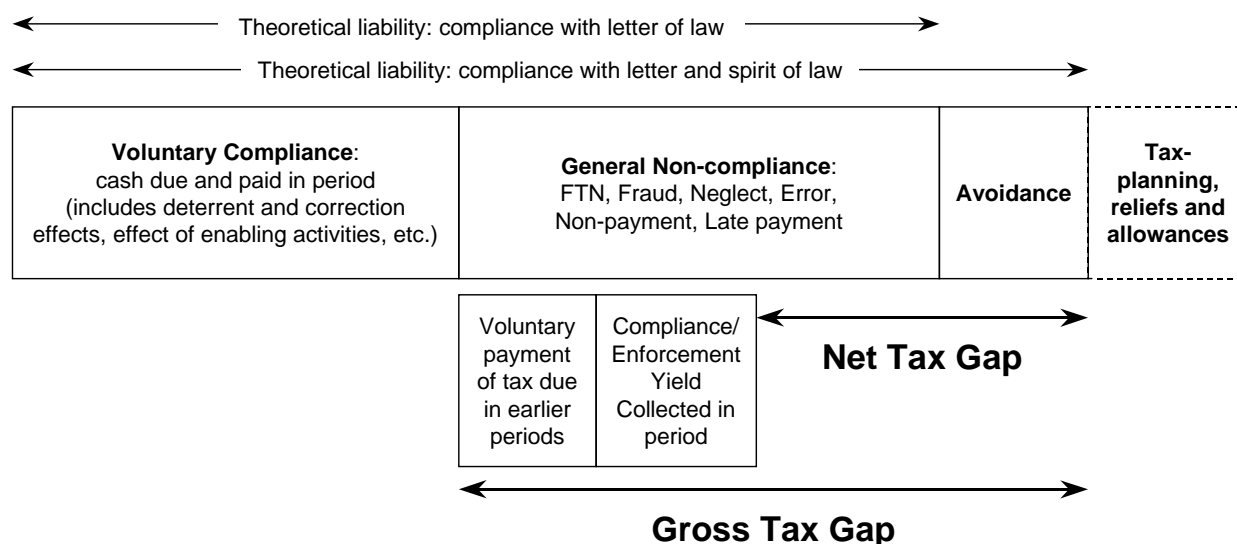
2.8 The tax gap is measured for a given level of economic activity. We recognise that there is no guarantee that the untaxed taxable activities would remain the same were they to be taxed

3. How do we measure the tax gap

3.1 Measurement of the tax gap for direct taxes is widely acknowledged to be fraught with difficulties. Some of these difficulties arise from mechanisms used for tax avoidance and evasion with their inherent secretive nature. Other reasons are to do with the general lack of independent data on income. Clearly the methodological issues are severe and it is fair to say that no fiscal authority around the world has found a completely reliable technique(s) for computing annual direct tax loss.

3.2 There are fundamental differences between the way tax gaps can be estimated for direct and indirect taxes. For indirect taxes, such as VAT and sales taxes, it is possible to carry out a top down gap analysis by comparing actual tax receipts against a theoretical expected tax yield calculated from externally available statistics on consumption. Such an approach is not possible with direct taxes because of the lack of independent income data sources. This means that there is no-one technique for producing a useable measure of the tax gap for direct taxes. Instead we have approached the problem by bringing together estimates of:-

- General non-compliance by customer group
- Avoidance by head of duty

- Non payment by head of duty

3.3   These estimates come from a mixture of different methodologies such as statistical exercises, surveys and a variety of analyses of other types of data. We have better evidence where we are able to use the results of statistical exercises such as Random Enquiry exercises. In other areas we have to use the risk assessments of our compliance staff or rational arguments based on the limited evidence available. The appendix describes in detail the methodologies used.

4.   High level summary of Tax Gap analysis

4.1   Table 4.1 provides estimates of net tax gap broken down by type of tax and type of tax loss - General Non Compliance, Non Payment and Avoidance.

Table 4.1 – Point and range estimates of net tax gap by direct tax type (£bn)

Direct Tax	General non-compliance			Avoidance			Non Payment			Total		
	Point	Lower	Upper	Point	Lower	Upper	Point	Lower	Upper	Point	Lower	Upper
Income Tax CGT National Insurance Contribution	8.1	3.7	17.1	3.9	1.9	5.9	0.5	0.5	0.5	12.5	6.1	23.4
Corporation Tax	2.9	1.4	6.9	4.4	2.1	6.6	0.2	0.2	0.2	7.2	2.9	13.7
Inheritance Tax	0.5	0.2	1.0	1.5	0.7	2.2	0.0	0.0	0.0	2.0	1.0	3.5
Stamp Duty	0.1	0.1	0.4				0.0	0.0	0.0			

4.2   Added together the estimates produce a combined range in the total net tax gap of around £11bn to £41bn with a point estimate of £22bn. This compares to receipts of £246bn (tax and NIC) in 2003/04. The width of the range represents the uncertainty of this work due to the limited evidence and the inherent difficulty involved in estimation.

4.3   This analysis should not be seen as the first step in a time series. That is not appropriate given the nature of the methodologies used. It is more accurate to regard this analysis as representing the current departmental view of the extent of the net tax-gap.

4.4   The analysis for general non-compliance for corporation and income tax can also be broken further down by customer groups as shown in table 4.2.

Table 4.2 – Point and range estimates of net tax gap arising from general non-compliance by Customer Group £(bn)

Customer Segment	Point estimate	Lower estimate	Upper estimate
Self Employed	3.6	1.4	7.0
Employers	0.7	0.3	1.3
Shadow Economy	2.5	1.5	6.1
Individuals with a tax return	0.7	0.3	1.6
Non Return individuals	0.7	0.3	1.0
Stamp Duty Land Tax	0.5	0.2	1.0
Inheritance Tax	0.1	0.1	0.4
Trusts[2]	0.0	0.0	0.1
Small Companies	1.5	0.9	3.9
Large Companies	1.3	0.5	3.0

4.5 The appendix describes in detail the reasoning used in constructing the figures in this table. Where possible further analysis is given of types of non-compliance found. The appendix also describes further research planned to refine these estimates and give further insights in to the nature of non-compliance.

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[2] The low estimates of tax loss through non-compliance by trusts should not be confused with the use of trusts to facilitate avoidance

Appendix - detailed commentary on tax gap calculations

1.   How do we measure the tax gap ?

1.1   Measurement of the tax gap for direct taxes is widely acknowledged to be fraught with difficulties. There is no-one technique for producing a useable measure of the tax gap for direct taxes. Instead we have approached the problem by bringing together estimates of:-

- General non-compliance by customer group
- Avoidance by head of duty
- Non payment by head of duty

1.2   These estimates come from a mixture of different methodologies. We have better evidence where we are able to use the results of statistical exercises such as Random Enquiry exercises. In other areas we have to use the risk assessments of our compliance staff or rational arguments based on the limited evidence available. Table A1 below shows how the overall estimate of tax gap is built up from a series of exercises and the type of technique used. The random enquiry approach and the methodologies used to estimate the extent of avoidance and non-payment are described in more detail later in this appendix.

1.3   Whilst the figures presented here give a plausible picture of tax at risk they are a long way from being definitive. It is a key part of the compliance strategy that we develop and improve our evidence over time as we get access to better data and develop more sophisticated modelling techniques. This could be described as an "action learning" approach in which the department learns more about the extent of risk by targeting activity and resources towards high-risk areas. For example recent Spend to Save initiatives will provide a clearer picture of the tax at risk in areas such as the Hidden Economy and the use of offshore accounts for evading tax. Data provided by the disclosure legislation will provide a greatly enhanced view of the use of marketed avoidance schemes.

Table A1 Techniques used to measure net tax gap by customer group

Head of Tax	Customer Group	Area of tax gap		
		General non-compliance	Avoidance	Non payment
Income tax / Capital Gains tax / NIC	Self Employed/ Partnerships	Random enquiries	Analysis of agents fees	Analysis of remissions
	Small/medium employers	Random enquiries		
	Large employers	Enquiry results		
	Construction Industry Scheme	Analysis of CIS vouchers		
	Non business individuals who receive a return	Random enquiries		
	Individuals who do not receive a return	Analysis of data for similar individuals who do receive a return		
	Ghosts	Expert opinion		
	Moonlighters	Survey		
	Trusts	Random enquiries		
Corporation tax	Small/medium Companies	Random enquiries	Analysis of agents fees	Analysis of remissions
	Large Companies	Risk assessments	Ad hoc survey of LBO groups 2002/03	
Inheritance tax		Expert opinion	Analysis of agents fees	Analysis of remissions
Stamp Duty Land Tax		Expert opinion		Analysis of remissions

Random Enquiries

1.4   Random Enquiry programmes are a fundamental compliance measurement tool.   These programmes are tightly controlled statistical exercises where samples of taxpayers are centrally selected at random and their returns subjected to full enquiries by compliance staff. They are considered a suitable and necessary approach for the large populations of taxpayers who are dealt with outside of the more intensive risk assessment regime of the Large Business Office - where all companies' returns and tax computations are subject to a detailed risk assessment.

1.5   There are separate random enquiry programmes for Income Tax Self Assessment (ITSA), small companies, small employers (those with less than 500 employees) and stamp duty land tax. These are at different stages of advancement which are described in table A2 below.

Table A2 Random Enquiry programmes

Population	Annual Sample Size	First Programme	Latest analysis
Self employed *	3000	1996/97 tax returns	2000/2001 tax returns
Small companies	250	Returns issued in 2000	Returns issued in 2000
Small employers	1000	1999/2000	2001/02
Individuals receiving a tax return who are not self employed*	3000	1996/97 tax returns	2000/2001 tax returns
Trusts *	100	1996/97 tax returns	2000/2001 tax returns
Stamp duty Land Tax	500	Transactions in 2004/05	Not yet available. First analysis in 2006.

* these form part of the overall ITSA random enquiry programme

1.6   Each Random Enquiry results in a figure of extra tax raised. (For many enquiries this will of course be zero). Because the enquiries are randomly selected, the tax yields from the enquiries can be used to extrapolate a tax gap figure for the whole population.

1.7   It is important to recognise that tax gap estimates produced directly by Random Enquiry exercises will underestimate the full extent of the tax gap since not all enquiries will discover all non-compliance. To emphasise this point, extra tax liability uncovered by Random Enquiries is often termed the "audit gap" rather than "tax gap". To take account of this we need to make an adjustment to the audit gap figure to allow for non-compliance that is not detected by enquiries.

1.8   The IRS have faced and dealt with similar issues when calculating their tax gap estimates from the equivalent of our random enquiry programmes (the Taxpayer Compliance Measurement Programmes or TCMP). The IRS used a range of multipliers to make adjustments for non-detection of non-compliance in enquiries. The table below shows how the choice of multiplier depends on the particular type of income/expense/allowance under dispute in the enquiry and the level of evidence available to IRS auditors.

Table A3 – IRS use of multipliers to adjust TCMP tax gap estimates.

Multiplier	Type of income items multiplier applied to
3.28	Areas where third party information not available to validate return data.
2.40	Understated self-employment income
2.27	Understated rent and royalties income
1.00	Overstated expenses, Other income in Tax Shelters, Overstated basis for Capital Gains and Form4797 income

1.9   The highest multiplier of 3.28 is based on an exercise carried out in the 1970s where the yield achieved from a sample of enquiries where auditors did not have access to extra information documents was compared to a sample where a range of additional information was made available. This extra information included information sent by employers, banks and mortgage holders. Clearly this multiplier is specific to the information available to the IRS at a particular point.   And in general HMRC compliance staff do have this type of pay and tax information available when undertaking an enquiry. Nevertheless there are types of income, such as capital gains or rental income, where third party information would provide the only indication that income has not been disclosed. Therefore a multiplier of this size has been used in looking at the tax gap for (non business) individuals with returns where other sources of, such as capital gains, are an important part of the tax gap.

1.10   For underreported self employed income IRS use a multiplier of 2.4. This fits well with Feinstein's research on Detection Control theory[3]. Feinstein has estimated that on average IRS auditors miss 50% of underreported income in the course of enquiries. This comes from a comparison of results achieved by the "best" auditors compared to the rest. As such this estimate (which corresponds to a multiplier of 2) will underestimate the true extent to which enquiries do not discover all non-compliance.

1.11   For some income types the IRS do not apply a multiplier. The rationale here is that these are areas where taxpayers would have to provide detailed documentation to justify the deduction. It is not obvious that this situation applies in the UK for the self employed.

1.12   We have considered for each random enquiry programme and customer group how to apply the multipliers set out above. This is explained in detail in paragraphs 3 onward.

1.13   These limitations of Random Enquiry techniques for net tax gap measurement means that the department has to seek alternative methods to validate the Random Enquiry results in order to be able to interpret changes over time. A further limitation of the random enquiry approach is the length of time, evident from table A3, taken from issue of returns through to the completion of enquiries and analysis. This means that tax gap measures based on the latest random enquiry results will in fact be several years out of date.

2.   Detailed analysis of general non-compliance

2.1   Table A4 shows a detailed version of the analysis of tax gap due to general non-compliance. It shows the estimates for each main customer group of (i) number and percentage of non-compliant taxpayers (ii) gross tax gap and (iii) and net tax gap. The rest of this paper describes how these figures (and those for avoidance and non-

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[3] "An econometric analysis of income tax evasion and its detection" published in RAND Journal of Economics Vol 22 No 1, Spring 1991.

payment) are calculated and gives further breakdowns, where available, by type of non-compliance.

Table A4 Detailed analysis of general non-compliance

Customer Group		Number of taxpayers	Percentage non-compliant taxpayers	Point Estimate of gross tax gap (£bn)	Lower estimate of gross tax gap (£bn)	Upper estimate of gross tax gap (£bn)	Compliance yield* in 2003/04 (£bn)	Point estimate of net tax gap (£bn)	Lower estimate of net tax gap (£bn)	Upper estimate of net tax gap (£bn)
SMEs	Self Employed/ Partnerships	4,000,000	51%	3.8	1.7	7.0	0.39	3.4	1.3	6.6
	Small/ medium companies	1,500,000	30%	2.4	1.8	4.8	0.90	1.5	0.9	3.9
	Small / medium employers	1,600,000	40%	0.6	0.5	0.8	0.28	0.3	0.2	0.5
	Construction Industry Scheme	870,000	17%	0.2	0.1	0.4	0.00	0.2	0.1	0.4
Large business	Companies	61000(30300 live)	N/A	3.3	2.5	5.0	1.99	1.3	0.5	3.0
	Employers	3,200	N/A	0.4	0.2	0.8	0.05	0.3	0.1	0.7
Hidden economy	Ghosts	520,000	100%	1.0	0.5	3.1	0.01	1.0	0.5	3.1
	Moonlighters	1,500,000	100%	1.5	1.0	3.0	0.01	1.5	1.0	3.0
Wealthy	SA non-business	4,800,000	20%	0.8	0.4	1.5	0.21	0.5	0.2	1.3
	Trusts	290,000	0%	0.0	0.0	0.1	0.02	0.0	0.0	0.1
	IHT	30,000	20%	0.2	0.2	0.5	0.13	0.1	0.1	0.4
	Non resident trusts	15000		0.2	0.1	0.3	0.02	0.1	0.1	0.3
Stamp Duty	Property transactions	1,200,000	20%	0.5	0.3	1.0	0.04	0.5	0.2	1.0
Non return individuals		21,800,000		0.7	0.3	1.0	0	0.7	0.3	1.0

*These figures are taken from the Board's Report for 2003/04. As far as possible compliance yield from specialist areas of work (for example Special Compliance Office and Special Investigations Section) has been apportioned between customer groups.

3.   Small and Medium Enterprises

3.1   Self Employed/Partnerships

Description of population - 4m taxpayers - generating receipts of 16bn (5 paid at source, 11 paid additionally through ITSA).

Estimate of tax gap The point estimate of the gross tax gap is £3.8bn within a range of £1.7bn to £7bn. Taking out compliance yield this gives a net tax gap of £3.4bn within a range of £1.3bn to £6.6bn. Note that this estimate includes capital gains for this group (which will be picked up by random enquiries).

Type of estimate. The estimates come from the pooled results for the ITSA Random Enquiry programmes for 1999/2000 and 2000/2001. The central estimate of the tax gap from the random enquiries is £1.98bn. For the central estimate of gross tax gap this "audit gap" estimate is adjusted by a multiplier of 1.9 to allow for non-detection of non-compliance. The rationale for the value of the multipliers for the point estimate and the range is explained in the section below. The results of the Random Enquiry programmes are described in much more detail in a series of ITSA Random Enquiry reports. The latest of these is the report for 1999/2000 returns.

Problems with estimate – use of multipliers.

The need to use a "random enquiry multiplier" is particularly acute for small businesses where it is difficult for enquiries to establish the true level of understated profits. Many of these businesses deal substantially in cash and have poor standards of record keeping. In serious instances of evasion the negotiated settlement can depend on how much the taxpayer can pay rather than how much tax was evaded.

Based on the discussion above (from paragraph 1.8 to 1.11 in this appendix) 2.4 appears to be an appropriate multiplier to use for turning the "audit tax gap" found for the self employed from underreported income in random enquiries into a point estimate of the tax gap figure. From the analysis shown in table A5 below we know that some 65% of the yield found in random enquiries for the self-employed comes as a result of underreported income. Using this analysis we construct a range and central estimate for the tax gap estimate in the following way:-
- To calculate the central estimate we multiply the underreported income element in the random enquiry estimate by a multiplier of 2.4 and do not apply a multiply to the rest. In effect this produces an overall multiplier of 1.9.
- To calculate the upper end of the range we (i) take the upper end of the 95% confidence interval from the random enquiry exercise (to account for sampling error in the random enquiry exercise) and (ii) multiply the underreported income element by a multiplier of 4.2. This multiplier of 4.2 is derived to coincide with the level of tax loss implied by the econometric analysis of FES data undertaken by IFS (and subsequently repeated within HMRC).
- To calculate the lower end of the range we take the lower end of the 95% confidence interval from the random enquiry exercise. No multiplier is used.

Clearly the use of multipliers, whilst necessary, is guided by assumption and indirect evidence. These assumptions will continue to be reviewed and will be tested by

research when resource permits. And we keep the academic work on this subject under review.

Breakdown of gap by size of businesses

Table A5 – comparison of random enquiry results for Self employed businesses above and below the VAT threshold.

Tax payer Group	% of self employed population	% of cases which result in yield upon enquiry	Average yield for return year	Average yield for return year for non-compliant cases	Share of total yield for return year from self employed random enquiries
Self employed with turnover greater than VAT threshold	20%	49%	£830	£1700	39%
Self employed with turnover less than VAT threshold	80%	43%	£330	£770	61%

This table shows that the larger businesses represent the highest risk per case. But it is also important to recognise that they do not account for the majority of yield brought in by random enquiries because they form a small percentage of the overall ITSA population (less than 20% of all self-employed).

## Distribution of tax at risk

Graph A1 below show the distribution of tax at risk found in random enquiries. Just under half the random enquiries into self employed taxpayers produce some yield. This reflects the high level of errors made by the self employed in completing returns and the generally poor standard of record keeping.

A key point to note is that the distribution of yield from enquiries is highly skewed. This entails that a high proportion of the tax gap comes from a small proportion of cases – the chart shows that 70% of the yield from the random enquiry cases came from 10% of the cases.

This type of analysis helps with thinking on levels of enquiry coverage. To complete the coverage picture needs further development of work on:-
- the indirect effects of enquiry work;
- identification of the highest risk taxpayers.

Graph A1 – distribution of yield for random enquiries into cases with a self employed source

Distribution of yield for random enquiries into cases with a self employed source
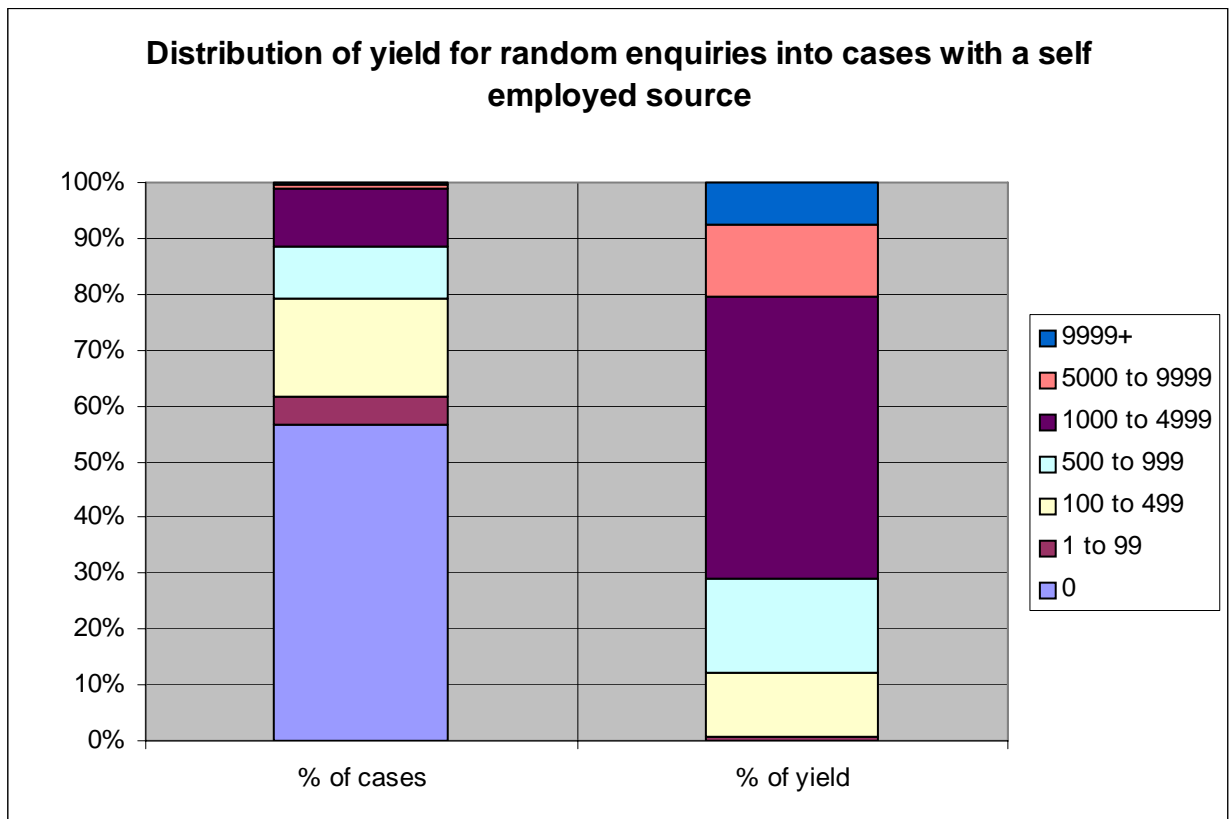
Breakdown of gap by type of non-compliance

As part of the data collected for enquiries Inspectors complete adjustment codes that describe the type of non-compliance found and record the size of the adjustments made. There are over a hundred adjustment codes. These have been summarised into three main categories.

- Understatement
- Technical issues
- Disclosure issues (these are issues that will only be apparent for a limited period of time – Capital Gains are a good example)

Table A6 – Analysis of frequency of occurrence of adjustments in self employed random enquiries broken down by size of adjustment and category of adjustment

Taxpayer type	Category of adjustment	% adjustments where yield less than £100	% adjustments where yield between £100 and £499	% adjustments where yield between £500 and £999	% adjustments where yield between £1000 and £4999	% adjustments where yield greater than £4999	Total
Turnover < VAT threshold	Disclosure	2%	2%	0%	0%	0%	5%
	Technical	6%	13%	6%	4%	0%	29%
	Understatement	14%	30%	12%	8%	0%	65%
	Other	0%	0%	0%	0%	0%	1%
	Total	22%	46%	18%	13%	1%	100%
Turnover > VAT threshold	Disclosure	1%	4%	2%	1%	0%	8%
	Technical	5%	9%	7%	8%	1%	30%
	Understatement	8%	23%	11%	17%	2%	61%
	Other	0%	0%	0%	0%	0%	1%
	Total	14%	36%	20%	26%	4%	100%

It is also possible to break down the yield from random enquiries by type of adjustment. This is done by dividing the yield for the enquiry amongst the adjustment codes in proportion to the amount of adjustment. This is shown in table A7 below:-

Table A7 - Analysis of yield found in random enquiries broken down by size of adjustment and category of adjustment

Taxpayer type	Category of adjustment	% adjustments where yield less than £100	% adjustments where yield between £100 and £499	% adjustments where yield between £500 and £999	% adjustments where yield between £1000 and £4999	% adjustments where yield greater than £4999	Total
Turnover < VAT threshold	Disclosure	0%	1%	1%	2%	2%	5%
	Technical	0%	5%	7%	12%	3%	27%
	Understatement	1%	13%	15%	25%	13%	66%
	Other	0%	0%	0%	0%	1%	1%
	Total	2%	19%	22%	38%	18%	100%
Turnover > VAT threshold	Disclosure	0%	1%	1%	2%	2%	5%
	Technical	0%	2%	4%	16%	9%	31%
	Understatement	0%	5%	7%	31%	19%	63%
	Other	0%	0%	0%	0%	0%	0%
	Total	1%	8%	12%	49%	30%	100%

Further work.

Table A8 – further work planned to refine and extend tax gap analysis for the self employed

Project	
Next Random Enquiry update	End of 2005
Update of Family Expenditure Survey method of measuring underreporting by the Self Employed.	End of 2005
Examination of multipliers by repeating the Feinstein work with Inland Revenue investigators.	Longer term
Development of compliance indicators to help highlight changes in taxpayer behaviour – for example net profitability	2005

Supporting documents. ITSA Random enquiry reports (99/00 and 00/01). IRS document suggesting a 50% discovery rate for enquiries. Pissardes and Weber (1989). IFS 1993 Working Paper by Baker. AR update of Pissardes and Weber/Baker. Lyssiotou et al.

3.2   Small/medium companies

Description of population. This is the sub LBO/OTO population (which will still include some very large companies). There are 1.5m companies in this population generating receipts of some £12bn.

Estimate of tax gap The point estimate of the gross tax gap is £2.4bn within a range of £1.8bn to £4.8bn. Taking out compliance yield this gives a net tax gap of £1.5bn within a range of £0.9bn to £3.9bn. Note that this estimate includes capital gains for this group (which will be picked up by random enquiries).

Type of estimate. The estimates come from the CTSA Random Enquiry programme for returns issued in 2000. The central estimate of the tax gap from the random enquiries is £1.78bn. For the central estimate of gross tax gap this "audit gap" estimate is adjusted by a multiplier of 1.38 to allow for non-detection of non-compliance. The rationale for the value of the multipliers for the point estimate and the range is explained in the section below. The results of the first CTSA Random Enquiry programme are described in much more detail in the CTSA Random Enquiry reports. Caution needs to be exercised with this these estimates. They are based on a provisional analysis of the first year of the CTSA random enquiry programme. Therefore it is possible that these figures may alter as a result of further validation. This is a small sample of cases and hence there is a considerable sampling error.

Problems with estimate – use of multipliers
From paragraph 1.8 to 1.11 in this appendix we describe use of multipliers to turn adjust "audit gap" estimates from random enquiry exercises into tax gap estimates and the evidence for using multipliers of different values. We conclude that a multiplier of 2.4 is reasonable to account for non-detection of underreported business income in enquiries.

We know that underreporting was responsible for just over a quarter of the value of adjustments made in Small Company random enquiries. Using this analysis we construct a range and central estimate for the tax gap estimate in the following way:-
- To calculate the central estimate we multiply the underreported income element in the random enquiry estimate by a multiplier of 2.4 and do not apply a multiply to the rest. In effect this produces an overall multiplier of 1.38.
- To calculate the upper end of the range we (i) take the upper end of the 95% confidence interval from the random enquiry exercise (to account for sampling error in the random enquiry exercise) and (ii) multiply the underreported income element by a multiplier of 4.2. This multiplier of 4.2 is derived for the self employed in order to coincide with the level of tax loss implied by the econometric analysis of FES data undertaken by IFS (and subsequently repeated within HMRC). It is used here for consistency.
- To be consistent with other estimates from random enquiry programmes (notably for the self employed (3.1) and wealthy individuals (6.1) this should be the lower end of the random enquiry confidence interval. However that approach would in this instance give an implausibly low figure for the payment gap (£0.1bn). Therefore lower end of the range has been taken to be the central estimate from the random enquiry programme with no multiplier applied.

Distribution of tax at risk

The chart below show the distribution of tax at risk found in company random enquiries. This distribution suggests that non-compliance in companies is rarer than for the self employed but more substantial where it occurs.

Graph A2 – distribution of yield for random enquiries into small/medium companies
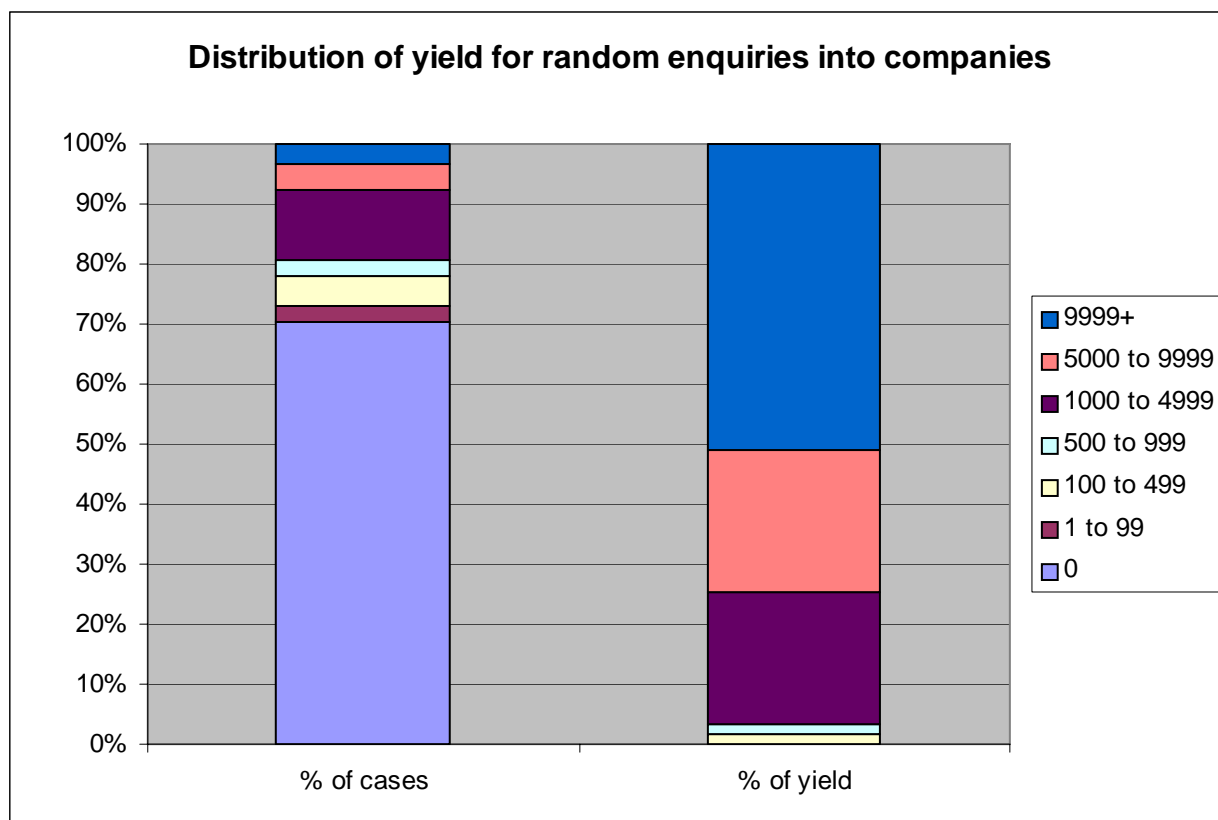
This graph needs to be treated with some caution. It shows the position for the 182 enquiries settled from the first year of the CTSA random enquiry programme. As such this analysis is subject to considerable sampling error. In particular the analysis of % of yield may change over time as more enquiries are completed.

Breakdown of gap by type of non-compliance

Table A9 – Analysis of frequency of occurrence of adjustments in company random enquiries broken down by size of adjustment and category of adjustment

Taxpayer type	Category of adjustment	% adjustments where yield less than £100	% adjustments where yield between £100 and £499	% adjustments where yield between £500 and £999	% adjustments where yield between £1000 and £4999	% adjustments where yield greater than £4999	Total
Small Companies	Disclosure	1%	5%	3%	4%	5%	18%
	Technical	5%	9%	5%	18%	6%	43%
	Understatement	1%	16%	6%	9%	5%	38%
	Other	0%	0%	0%	1%	1%	3%
	Total	8%	30%	14%	31%	18%	100%

Non-compliance seems to be rarer in small companies than for the self employed but more substantial where it occurs. There is more emphasis on technical and disclosure risks – which imposes a requirement to catch risks as they happen.   Of course this may be due to the larger size of companies compared to the self-employed and the different skills of the staff who carry out the enquiries. But these differences emphasise the need to guard against simply placing all small businesses into an all embracing SME segment and treating them the same.

Further work.

Table A10 – further work planned to refine and extend tax gap analysis for small/medium companies

Project	
Next Random Enquiry update	End of 2005
Analysis of small company Effective Tax Rates	Longer term when BDCT up and running
Examination of multipliers by repeating the Feinstein work with Inland Revenue investigators.	Longer term
Development of compliance indicators to help highlight changes in taxpayer behaviour – for example net profitability	2005

Related documents. CTSA random enquiry report for returns issued in 2000

3.3 Small/Medium Employers – regulatory failures

Description of population - 1.6m employers (most are very small) generating £80bn receipts tax and NICs. Beware the dangers of double counting these receipts with the receipts for employees.

Estimate of tax gap. The point estimate of the gross tax gap for regulatory failure is £0.6bn within a range of £0.5bn to £0.8bn. Taking out compliance yield this gives a net tax gap of £0.3bn within a range of £0.2bn to £0.5bn.

Type of estimate. The random enquiry programme for small employers produces an estimate of £0.5 bn +/- £0.1bn. It is thought that this estimate does not cover the key area of incorrect employment status. The expert view is that the tax loss per annum incorrect employment status is £100m. Given that this is an expert view a range of +100%/-50% is applied. Added together this gives an overall estimate of £0.6bn within a range of £0.45bn to £0.8bn.

Problems with estimate.

Risks involving employers span across customer groups. For example:-

- Shadow economy. Payment of ghosts and people paid partially off-books. Non-compliance falling outside these areas would not be spotted by PAYE audits
- Non payment (phoenixism). Phoenixism is a deliberate practice of setting up companies for a short periods of time and entering into bankruptcy before any PAYE has been handed to HMRC.
- NIC and PAYE avoidance.
- Regulatory failure. Failure to operate PAYE correctly, incorrect treatment of benefits, payment of SSP/SMP/tax credits and incorrect treatment of employment status.

Full enquiries into employers will tend to concentrate upon regulatory failure and seek validate the standard operation of PAYE and payment of benefits/ SSP/ SMP/ Tax credits. . Once a PAYE issue of this type has been spotted in the course of core checks it can usually be quantified (hence no multiplier has been used with the random enquiry results). However we think that the major risks of surrounding incorrect treatment of employees – and particularly IR35 and broader problems with employment status - may not be picked up here by random enquiries. This is because of the specialist compliance skills required to work these issues and the amount of effort that would be involved. (This view is confirmed by table A9 where these major risks barely feature in an analysis of risks found in random enquiries.) The SDS view is that the loss here per annum is of the order of £100m per annum.

It is likely that non-compliance falling outside PAYE regulatory failure will not be spotted by PAYE audits. In theory these types of non-compliance are captured elsewhere in this tax gap analysis within the estimates for shadow economy (Ghosts and Moonlighters), avoidance and non-payment (for phoenixism).

Broader employer risks

In an aggregate tax gap analysis it is important not to double count the same tax loss under a series of headings. This has led us to only count regulatory failure under the heading of employers. But it is also important to recognise the extent to which tax loss is associated with employer behaviour.

PAYE and NIC Avoidance. We estimate the tax loss through IT/NIC marketed avoidance schemes to be between £1.9bn to £5.9bn per annum (see paragraph 9). Of course not all of that will be avoidance of NIC/PAYE. But it is clear that PAYE/NIC avoidance schemes form a major part of the avoidance market. Of the 506 schemes disclosed between 1 August 2004 and 13 March 2005 166 are employment products i.e. roughly a third (NIC avoidance schemes will be on top of that). When returns come in 2006 it will be possible to get a detailed estimate of the tax avoided through PAYE schemes. But it is clear that this runs into billions of pounds per annum.

Shadow Economy. The estimate of tax evaded by ghosts (see paragraph 5.1) comes from a series of lower level estimates. These include an estimate of £0.5bn for employee ghosts.

Phoenixism. There are varying degrees to which individuals/businesses practising phoenixism will be known to the department. In one case businesses will be registered with the department (and Companies House). In the more extreme case businesses are completely off the books (as was often seen in the rag trade). The latter falls into the shadow economy estimate above. Currently we do not have much evidence on the extent of the type of phoenixism where the employer is known to the department. We do know that £345m Income Tax was written off in 2003 (the great bulk due to insolvency) and this must form a upper bound on the possible extent of phoenixism where the employer is known to the department. However it is likely that the bulk of insolvencies will be genuine so the tax loss due to phoenixism must be considerably less than that. This is an area where KAI Analysis will be carrying out further research in 2005.

This analysis indicates that avoidance forms the major component of employer tax risk. After that comes general regulatory failure (which comes to £1bn if the figures for large employers are included) followed by tax loss through the Employer involvement with the shadow economy.

Distribution of tax at risk in random enquiries

Table A11 below shows the distribution of yield from random enquiries by legal status of the employer. The table demonstrates that companies are a notably higher risk group than other types of legal entity. Indeed companies account for 78% of the total yield found in the random enquiries.

Table A11 Distribution of enquiry yields by Legal Status for the 2001/02 EC Random Enquiry Sample

Legal Status of Employers	Number of Employers	Yield from enquiry							
		0	**£1-£100**	**£101-£300**	**£301-£500**	**£501-£1,000**	**£1,001-£5,000**	**£5,001-£10,000**	**£10,000 +**
Individual or Sole Trade	501,588	67%	3%	10%	1%	8%	8%	2%	1%
Partnership	175,949	71%	1%	3%	3%	10%	11%	1%	0%
Limited Company	801,230	54%	1%	3%	5%	4%	23%	5%	4%
Club, Society or Association	57,497	70%	0%	6%	0%	0%	22%	1%	0%
2001/02 Population Estimates	1,545,503	61%	2%	5%	3%	6%	17%	4%	3%

Types of non-compliance. Compliance workers record types of irregularity found in employer visits. An analysis of the irregularities found is shown in table A12 below.

Table A12 % of number of adjustments for each type of irregularity found in Small Employer 2000/01 Employer Random Enquiry programme

Type of irregularity	Limited Company	Partnership	Individual or Sole Trader	Club, Society or Association
BIK/EXPS	24%	17%	10%	22%
CARS/VANS	32%	26%	18%	18%
Construction Industry Scheme	1%	2%	2%	0%
Directors	11%	2%	1%	0%
Ex-Pats	0%	0%	0%	0%
IR35	0%	0%	0%	0%
ITSC	1%	0%	1%	0%
New Car and Fuel Benefit	0%	0%	0%	0%
PAYE/Class1 NIC	26%	46%	60%	52%
RETURNS FAILURE	2%	1%	2%	0%
SMP	2%	1%	2%	3%
SSP	1%	3%	2%	3%
Tax Credit	0%	3%	1%	2%

Improvements to methodologies.

Table A13 – further work planned to refine and extend tax gap analysis for small/medium employers

Project	
Next Random Enquiry update	December 2005
Update table A9 above to show a breakdown of tax gap by these categories.	December 005
Further work to examine the extent of status and tips tax loss	Tips/Troncs Spend to Save evaluation will cast some light on this by April 2006. Status issue needs fresh thinking over longer term.
Sampling exercise with insolvencies to examine future behaviour	December 2005
Employer collusion risk assessment project	Longer term

Related documents. 2001/02 Employer Random enquiry report

3.4   Construction Industry Scheme – status issues

Description of population - 870k contractors and subcontractors generating £2bn receipts from money collected through deductions collected under the scheme. This element of the tax gap is due to sub-contractors incorrectly operating under a self-employed status whereas in fact they are employees – thus generating a loss in NIC. Other non-compliance by people working in the construction industry will be captured within the estimates for the self employed, small companies, employers and the shadow economy.

Estimate of tax Gap. . The point estimate of the gross tax gap is £0.2bn within a range of £0.1bn to £0.4bn. Prior to 2004/05 there had been little compliance work in this area. The 2004 spend to save initiative will help tackle this problem.

Type of estimate. – Analysis of voucher data
One way of analysing CIS data to look at the extent of the status problem is to look at the number of contractors that subcontractors work for. The existence of a status problem is shown in the graph below which looks at the distribution of vouchers returned where just one contractor was worked for. There is a striking local peak around 12 vouchers - indicating monthly payment.

*Graph A3 – Vouchers submitted where just one contractor worked fo*r

Number of CIS25 vouchers submitted where just one contractor worked for
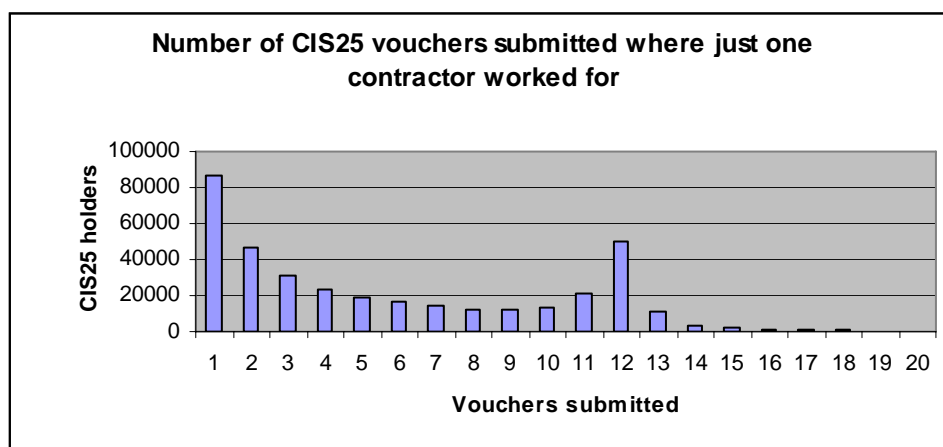
To calculate a tax gap figure for status abuse in the construction industry we have looked at subcontractors who do not subcontract work themselves, work for 1 or 2 contractors and who submit 11-13 vouchers. This pattern strongly indicates regular work i.e. employment. There are some 100,000 subcontractors fitting this pattern. Some of these subcontractors will employ their own staff and we wanted to try to strip these out. Unfortunately from the CIS data we cannot tell whether a subcontractor is an employer. But we do know from the SA returns data the percentage of subcontractors who are employers by turnover band. This allows us to estimate what proportion of the 100,000 are employers - leaving us with an estimated 85,000 who are not. Finally we wanted to strip out those subcontractors who supply their own materials - which we can observe directly from CIS vouchers. That leaves 72,000 subcontractors – almost certainly a conservative estimate of the number of

subcontractors where there is a status problem. From the gross payments made to these subcontractors we estimate an annual loss in NIC of £200m.

Problems with estimate. The argument is purely based on patterns seen in data. It is not obvious how to calculate confidence intervals for this estimate. Therefore a convention of –50%/+100% has been used.

Improvements to methodologies.

Table A14 – further work planned to refine and extend tax gap analysis for status issues in the construction industry

Project	
Analysis of Spend to Save Leverage initiative	2005

<u>Supporting documents</u>. In time spend to save monitoring documents

4.   Large Business

4.1   Large Companies

Description of population - 30,000 companies dealt with by LBO/OTO (these will fall into some 800 Group entities) generating £18.8bn receipts.

Tax Gap estimate. The point estimate of the gross tax gap is £3.3bn within a range of £2.5bn to £5bn. Taking out compliance yield this gives a net tax gap of £1.3bn within a range of £0.5bn to £3bn. Note that these figures do not include the successful use of avoidance schemes by large companies. This is covered under Avoidance in paragraph 9.

Type of estimate - Aggregation of tax at risk assessments by inspectors in LBO/OTO in January 2004 gave a total tax at risk on open issues figure of £11.5bn. The judgement of the director of LBO was that this covers issues over 3.5 years. Hence £3.3bn is the annual amount of risk detected.

Problems with estimate. There are several issues with this estimate:-
- The risk assessments were not made with the purpose of estimating tax gap in mind.
- Clearly the risk assessments look at the potential tax at risk - and issues will be missed in risk assessment.
- The risk identified in risk assessment will not all be collectable as the burden of proof falls on LBO, which lacks resources to fully research and litigate all cases, and therefore negotiates settlements with taxpayers. [This is not a problem with the estimate, since we are not aiming to estimate the collectable gap. Indeed it is an argument for using the initial risk assessments as the basis for our estimate.]
- There is no clear rationale for setting a range for the estimate. A range has been set of –25%/+50% which simply expresses an analysts reasonable view of where the true figure may lie.

Improvements to methodologies.

Table A15 – further work planned to refine and extend tax gap analysis for large companies

Project	Deadline
Exploration of a more structured approach to gathering the judgements of LBS compliance workers that is specifically geared to measurement of the tax gap.	Feasibility analysis by close of 2005
Analysis based on improved data provided by the Better Data for CT project. In particular Effective Tax Rate analysis.	Longer term

4.2   Large Employers - regulatory failure.

(See 3.3 for a detailed discussion of employer risks)

Description of population - 3,200 large employers dealt with by LBO(EC), receipts are £70bn. Note that there is not a direct overlap between companies and employers dealt with by LBO.

Tax Gap estimate. The point estimate of the gross tax gap is £0.4bn within a range of £0.2bn to £0.8bn. Taking out compliance yield this gives a net tax gap of £0.3bn within a range of £0.1bn to £0.7bn

Type of estimate. The calculation treats the operational risk based audits as a random sample. The results of LBO enquiries closed between 2000 and 2003 are shown in the table below:-

Table A16 – results of LBO EC enquiries

Year	Tax	NIC	Other	Total	Cases	Average
1999/2000	19,189,055	7,402,405	3,009,457	29,600,917	229	129,262
2000/2001	30,660,561	17,020,080	4,921,628	52,602,269	276	190,588
2001/2002	26,444,342	25,395,105	4,056,778	55,896,225	253	220,934
2002/2003	29,396,454	18,912,822	6,941,134	55,250,410	332	166,417

Over the 4 years the average settlement is £190,000. It is assumed that these settlements cover on average 1.5 years. Therefore the annual tax gap is £0.43bn = (£190000 / 1.5 * 3200)

Problems with estimate. Treating audits as a random sample is a very strong assumption that may overestimate tax at risk relating to correct operation of PAYE. But as for smaller employers there is the danger that core audit checks will not spot other more pernicious forms of non-compliance - such as payment of ghosts and people paid partially off-books. In theory non-compliance of this type is captured under the estimates for Shadow Economy (Ghosts and Moonlighters. It is not obvious how to calculate confidence intervals for this estimate. Therefore a convention of – 50%/+100% has been used.

Improvements to methodologies. Nothing planned.

5.   Hidden Economy

5.1   Ghosts

Description of population – Those either employed or self-employed earning more than their personal allowance who are unknown to the revenue because they do not notify under S.7 TMA1970, PAYE is not operated, and they have not been discovered in compliance work. There are several reasons why people may be ghosts. They may wish to increase their disposable income by evading tax, and possibly by concealing their work altogether and claiming JSA. Individuals who are illegally resident and lack a NI number have little choice other than to remain ghosts. Alternatively, it may be the employer that is driving the evasion, the employee having little power or incentive to challenge the situation. The employer may be a ghost, or may operate a PAYE scheme for some employees but not others, wishing to evade some employer's NICs. In some cases the wages may be paid out of non-book income. Hypothetical calculations give around 250,000 illegally resident workers and 270,000 further ghosts with the right to remain, though there is little evidence available to support these figures.

Tax Gap estimate. The point estimate of the gross tax gap is £1bn within a range of £0.5bn to £3.1bn.

Type of estimate - Ghosts are not accurately recorded by any government agency or survey. Any estimate as to their number or the consequential loss of duty is speculative. Nevertheless it is useful to think about the potential tax loss from this population.

Ghosts can be placed into four categories.
1.   Those failing to get by on benefits, unable to make transition to formal work. They will often have employment (not taxed through PAYE) with low wages.
2.   A fraction of the self-employed population, generally with higher incomes than group 1, who evade the cost of tax and burden of record keeping by failing to notify, but who generally do not claim DWP benefits, though they or their partners may claim tax credits.
3.   Some employees who are paid in cash because their employers want to save on NICs, minimise the impact of regulations, or pay a lower gross wage. However, on average this group has higher wages than group 1. Such employees may be also encouraged to claim benefits or tax credits.
4.   Illegal immigrants may obtain false identities, which they use to obtain jobs under PAYE. Others must obtain informal employment or self-employment, but will not claim benefits.

Estimates for Groups 1 and 3 are taken by doubling the estimated number of JSA claimants that work full-time, and assuming that on average they earn the National Minimum Wage. (A further assumption is that DWP only detect 67% of actual fraud due to FT work).

Tax loss for Group 2 is estimated by assuming that 5% of the ONS-estimated number of full time self-employed persons are ghosts. We estimate their income and tax due by shifting the reported income of the known population downwards somewhat.

There is no data on the numbers in group 4. Rather than ignore the problem we use estimated flows of illegal immigrants from Migration Watch. Although many illegal immigrants will be paid less than National Minimum Wage, some will be paid more, so we estimate assuming all receive National Minimum Wage, assuming 50% are employees and 50% are self employed.

Problems with estimate - Little data to support population estimates. An error margin of at least +100%/-50% should be assumed – and given the uncertainties over the top end of the range we have used a range of +200%/-50%.

Work has been done to compare numbers of people in work according to the Labour Force Survey against numbers on Inland Revenue databases. This has not proved to be a useful comparison and has not shown any patterns that we believe to provide useful indicators of risk or levels of non-compliance. The basic problem is that there is too much noise in the LFS data to allow proper comparisons. And there must be real doubt over the extent to which genuine ghosts would take part within the LFS.

Improvements to methodologies.

Table A17 – further work planned to refine and extend tax gap analysis for ghosts

Project	Deadline
A data matching project to compare external lists against Inland Revenue records. This to cover Voters List and Yellow Pages	By PBR 2005
Analysis of Area projects to uncover ghosts	To proceed when the RIAT Support System contains sufficient data. Initial analysis can be expected by April 2006.
Follow up with Academics – scope further survey work	Summer 2005
Analysis of Hartlepool experiment (in which certain individual businesses may disclose their true circumstances on an anonymous basis via intermediaries)	April 2006
Employer collusion risk assessment project	Longer term
Labour Force Survey analysis – report on completed work	Summer 2005

Supporting Documents. Report on LFS analysis.

5.2   Moonlighters

Description of population - An estimated 1.5m employees and some pensioners working on own account (during or outside work hours) or with additional cash job(s), not included in SA population or not completing self-employment pages.
Tax Gap estimate - The point estimate of the gross tax gap is £1.5bn within a range of £1bn to £3bn.
Type of estimate - UK survey data reported in "The Shadow Economy in Germany, Great Britain and Scandinavia: A measurement based on questionnaire surveys", Soren Pedersen, 2003 (published by Statistics Denmark) is used to estimate the proportion of employees who moonlight, the number of hours on average spent moonlighting and their income. The data in Pedersen suggests that the incidence and time spent moonlighting does not vary with income, and that wages from moonlighting are similar to those that could be earned in the formal economy, so that they vary in proportion to income. This enables us to calculate an aggregate ratio of informal:formal income applicable to the income strata as set out in Inland Revenue Statistics. This ratio is then applied to aggregate data on employment income for each strata and applicable marginal tax rates are used to calculate the IT and NIC due. The number of moonlighters in each strata are used to calculate the Class 2 NICs due, but these are negligible.

Problems with estimate – We do not think that a survey approach, even an anonymous survey, will capture "hardcore" moonlighting, for example people paid partly off the books for their main job. Employer Collusion is a major risk here - which tends not to be picked up in PAYE audits. There is no clear rationale for setting a range. The range used of +100%/-33% expresses our view that this method provides a reliable lower bound with the possibility that the true tax loss due to moonlighting may be much higher.

Improvements to methodologies. The survey work can be considered a reliable lower-bound estimate, though limited in scope. Further work is needed to estimate the degree of more pernicious moonlighting not captured by the survey and the extent of employer collusion.

Table A18 – further work planned to refine and extend tax gap analysis for small/medium employers

Project	Deadline
Follow up with Academics – scope further survey work	Summer 2005
Analysis of Hartlepool experiment (a little more detail required here)	April 2006 ?
Employer collusion risk assessment project	Longer term
Labour Force Survey analysis – report on completed work	Summer 2005

Supporting Documents. "The Shadow Economy in Germany, Great Britain and Scandinavia" by Søren Pedersen, 2003, distributed by Statistics Denmark.

6.   The wealthy

6.1   ITSA - non business taxpayers.

Description of population - 4.8m taxpayers who generate some £55bn in tax receipts (£49.7bn deducted at source and £4.9bn collected through ITSA).

Estimate of tax gap The point estimate of the gross tax gap is £0.8bn within a range of £0.4bn to £1.5bn. Taking out compliance yield this gives a net tax gap of £0.5bn within a range of £0.2bn to £1.3bn. This estimate includes capital gains for this group (which in theory are be picked up by random enquiries). Note that these figures do not include the successful use of avoidance schemes by wealthy individuals. This is covered under Avoidance in paragraph 9.

Type of estimate. The estimates come from the pooled results for the ITSA Random Enquiry programmes for 1999/2000 and 2000/2001. The central estimate of the tax gap from the random enquiries is £0.6m. For the central estimate of gross tax gap this "audit gap" estimate is adjusted by a multiplier of 1.26 to allow for non-detection of non-compliance. The rationale for the value of the multipliers for the point estimate and the range is explained in the section below. The results of the Random Enquiry programmes are described in much more detail in a series of ITSA Random Enquiry reports. The latest of these is the report for 2000/2001 returns.

Problems with estimate – use of multipliers
From para 1.9 to 1.12 in this appendix we describe use of multipliers to turn adjust "audit gap" estimates from random enquiry exercises into tax gap estimates and the evidence for using multipliers of different values. The types of non-compliance (and compliance workers ability to detect bottom them out in enquiries) differ between the self employed and other individuals who receive returns. Therefore a different rationale for multipliers is used. The main types of non-compliance for non-business individuals who receive a return is shown in tables A19 and A20. Most of these types of non-compliance would be straightforward to spot in an enquiry and from there the calculation of liability would be a largely mechanical exercise. However it is much more difficult to spot sources of income not included on the return. Two examples of this are "other income" (which will include things like undeclared rent from a property) and capital gains. In the absence of reliable third party information we will often have to rely on the taxpayer to disclose these sources of income in the enquiry. As discussed in 1.8 there is similar in concept to the situation where IRS use a multiplier of 3.28 because auditors do not have reliable information to verify the return against.

From table A20 we know that capital gains and other income were responsible for 41% of the value of adjustments made in non-business individual random enquiries. Using this analysis we construct a range and central estimate for the tax gap estimate in the following way:-
*   To calculate the central estimate we (i) multiply the element in the random enquiry estimate due to capital gains and other income by a multiplier of 1.64 and (ii) do not apply a multiply to the rest. Not all the non-compliance with capital gains and other income will be due to non-disclosure (for example the tax treatment of disclosed gain maybe incorrect). There is no way that we can

currently drill down further to find the loss due to non-disclosure. Therefore we assume it is 50% - giving a multiplier of 1.64. In effect this approach produces an overall multiplier of 1.26.

- To calculate the upper end of the range we (i) take the upper end of the 95% confidence interval from the random enquiry exercise (to account for sampling error in the random enquiry exercise) and (ii) multiply the element in the random enquiry estimate due to capital gains and other income by a multiplier of 3.28.
- To calculate the lower end of the range we take the lower end of the 95% confidence interval from the random enquiry exercise. No multiplier is used.

Distribution of tax at risk

Graph A4 below shows that the distribution of yield from non business random enquiries is even more skewed than for small businesses. Random enquiries suggest that 80% of non business ITSA taxpayers are compliant i.e. the enquiries produce no yield. This reflects the fact that for many employees there is very little to get wrong on the return. Note that close to 90% of all the yield comes from 5% of the enquiries.

Graph A4 – distribution of yield for random enquiries into non-business individuals
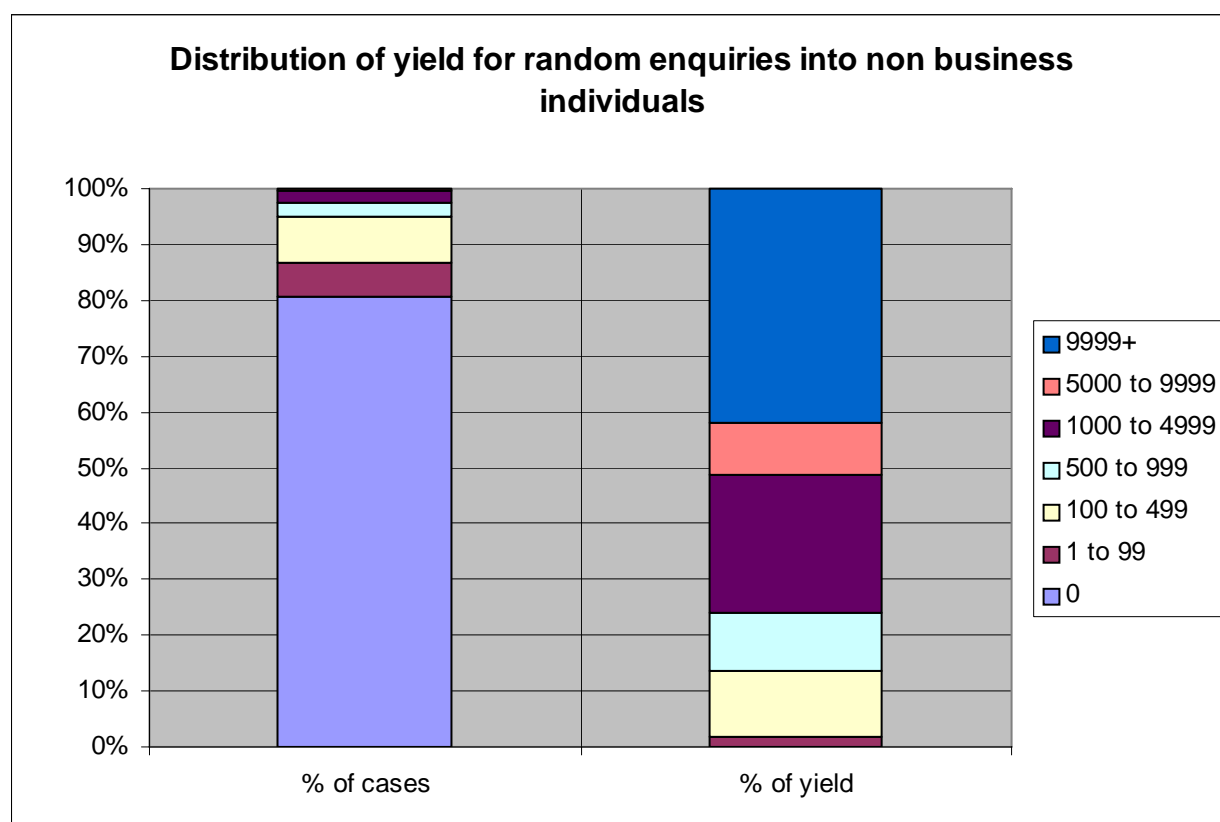
Breakdown of gap by type of non-compliance
Much of the non-compliance for non-business taxpayers is classed as understatement using the categorisation employed for small businesses. So the analysis in tables A19 and A20 below (for 1999/2000 and 2000/2001 ITSA random enquiries) uses a more useful classification specific to non-business taxpayers.

Table A19 – Analysis of frequency of occurrence of adjustments in 1999/2000 and 2000/2001 non business random enquiries broken down by size of adjustment and category of adjustment

Category of adjustment	% adjustments where yield less than £100	% adjustments where yield between £100 and £499	% adjustments where yield between £500 and £999	% adjustments where yield between £1000 and £4999	% adjustments where yield greater than £4999	Total
Capital Gains	0%	1%	0%	1%	0%	3%
Other Income	7%	9%	2%	3%	1%	23%
Investment Income	16%	7%	2%	1%	0%	26%
Other international adjustments	0%	0%	0%	0%	0%	0%
Benefits	6%	8%	2%	3%	0%	20%
Reliefs	4%	5%	2%	1%	0%	12%
Allowances	2%	3%	0%	0%	0%	6%
Expenses in employment	0%	0%	0%	0%	0%	1%
Rest	4%	4%	2%	1%	0%	10%
Total	41%	38%	9%	10%	2%	100%

Table A20 - Analysis of yield found adjustments in 1999/2000 and 2000/2001non-business random enquiries broken down by size of adjustment and category of adjustment

Category of adjustment	% adjustments where yield less than £100	% adjustments where yield between £100 and £499	% adjustments where yield between £500 and £999	% adjustments where yield between £1000 and £4999	% adjustments where yield greater than £4999	Total
Capital Gains	0%	0%	0%	2%	10%	13%
Other Income	0%	3%	2%	9%	13%	27%
Investment Income	1%	2%	2%	4%	11%	19%
Other international adjustments	0%	0%	0%	0%	9%	9%
Benefits	0%	3%	2%	7%	3%	15%
Reliefs	0%	2%	1%	1%	0%	5%
Allowances	0%	1%	0%	0%	0%	2%
Expenses in employment	0%	0%	0%	1%	2%	3%
Rest	0%	1%	2%	3%	1%	7%
Total	2%	13%	9%	27%	49%	100%

The major single risks found for non-business taxpayers are Other income, Interest, Benefits and Capital Gains. The distributions by size of these risks are very different. Capital Gains are rare but large where they occur. (Similarly there is the extreme case of one international adjustment that accounts for 15% of the yield in the 1999/2000 sample). This points to the need for extra data (particularly on property transactions) to identify the risks as they occur - probably to generate enquiry interventions. Interest adjustments are much more common but small and would probably not justify

an enquiry in themselves. So an alternative here would be to use the third party data received on bank accounts as the basis of a leverage campaign.

Improvements to methodologies.

Table A21 – further work planned to refine and extend tax gap analysis for non business individuals who receive a tax return

Project	Deadline
Next Random Enquiry update	End of 2005
Analysis of Hedge Funds initiative	End of 2005
In depth analysis of risk associated with Non Residence/ Non Domicile status.	Longer term
Analysis of CPR enquiry results. The high level of enquiry coverage into the wealthiest taxpayers dealt with by the Complex Personal Return teams should allow some assessment of the tax gap for this group.	End of 2005

Supporting Documents. ITSA Random Enquiry paper.

6.2   Onshore Trusts

Estimate of tax gap The point estimate of the gross tax gap is £0.04bn within a range of £0bn to £0.08bn. Taking out compliance yield this gives a net tax gap of £0.02 bn within a range of £0bn to £0.06bn.
Type of estimate. The estimates come from pooled ITSA Random Enquiry programmes. The central estimate of the tax gap from the random enquiries is £35m. The small sample of Trusts within the ITSA random enquiry programme means that the confidence interval for the estimate is extremely wide i.e. + 100%/100%. Therefore the sampling error has been used to set the upper end of the range for this estimate. As Trusts offices achieve £0.02bn from compliance work we know that the lower end of the range is at least this.
Problems with estimate. The standard issue of random enquiries not finding all undeclared income. The small sample means that the confidence interval for the estimate is extremely wide.
Improvements to methodologies. Nothing planned at present.
Supporting Documents. ITSA Random Enquiry paper.

6.3   Offshore Trusts

Description of population - 15,000 offshore trusts with outstanding returns
Tax Gap estimate. The point estimate of the gross tax gap is £0.15bn within a range of £0.075bn to £0.3bn.
Type of estimate. Expert opinion of people in CNR. No real evidence
Problems with estimate Opinion rather than fact.
Improvements to methodologies.

Table A22 – further work planned to refine and extend tax gap analysis for offshore trusts

Project	Deadline
An exercise to force returns from a statistically selected sample of offshore trusts who have not submitted over the past 5 year.s	End of 2005

6.4   IHT

Description of population - 30,000 taxpayers, £2.4bn receipts

Tax Gap estimate. The point estimate of the gross tax gap is £0.24bn within a range of £0.18bn to £0.48bn. Taking out compliance yield this gives a net tax gap of £0.12bn within a range of £0.06bn to £0.36bn.

Type of estimate. No real evidence. In the lack of any evidence we adopt a convention of tax at risk of 10% of receipts.

Problems with estimate Opinion rather than fact.

Improvements to methodologies.

Table A23 – further work planned to refine and extend tax gap analysis for Inheritance Tax

Project	Deadline
There is a very small IHT random enquiry programme. Initial analysis of enquiries will shed light on the percentage of non-compliant IHT taxpayers.	End of 2005

7.   Stamp Duty - property transactions

Description of population - .2m transactions, £5bn receipts

Tax Gap estimate. The point estimate of the gross tax gap is £0.5bn within a range of £0.25bn to £1.00bn. Taking out compliance yield this gives a net tax gap of £0.46bn within a range of £0.21bn to £0.96bn.

Type of estimate. No real evidence. In the lack of any evidence we adopt a convention of tax at risk of 10% of receipts.

Problems with estimate Opinion rather than fact.

Improvements to methodologies.

Table A24 – further work planned to refine and extend tax gap analysis for Stamps Duty Land Tax

Project	Deadline
The SDLT random enquiry programme began in 2004. This will provide much firmer information on the extent of the tax gap.	End of 2006

8.   Non Return Individuals

Description of population - 21.8m individuals, £45.3bn receipts income tax
Tax Gap estimate. The point estimate of the gross tax gap is £0.65bn within a range of £0.3bn to £1.00bn.
Type of estimate – In general, the Inland Revenue believes that the tax at risk for individuals who do not receive a tax return is low. This is because most employees pay the bulk of their tax through PAYE and as such, the opportunities for non-compliance are few.

Nevertheless, there are risks. For example, taxpayers may not inform Inland Revenue about sources of income such as rental income or about capital gains. The growth of the buy-to-let business in the property market has opened up potential for more people with undeclared rental income (leading onto undeclared capital gains). Random issues of returns (and subsequent enquiries) are however not deemed appropriate for this population given the burden that it would impose on largely compliant taxpayers. It is however possible to gauge the potential upper limit for tax loss by examining tax paid for these reasons by those taxpayers who do receive returns.

In our analysis the estimate of tax gap for individuals who do not receive a tax return has been built up by looking in this way at undisclosed capital gains, undisclosed rental income and interest taxed at the wrong rate. In further work we will also consider expenses from employment and residence issues.

Undeclared Capital Gains.
We proceed from the supposition that those routinely required to report their income on a SA tax return report the same percentage of their net gains as they do of their net income, while those not sent a return do not generally report their gains. Consequently we have little information about gains enjoyed by the non-SA population. In contrast to this, we believe we have reasonably accurate information about their income via PAYE reporting. Therefore, we use income data as a proxy for gains to produce an estimate of the gap due to gains.

In the absence of any more developed model we have assumed that across large numbers of similar taxpayers taxable gains (net of losses and after Annual Exempt Amounts) are a constant fraction of taxable income (before Married Couples Allowance and Children's Tax Credit). This ratio is calculated for two groups of SA taxpayers expected to resemble the non-SA population: (i) basic rate taxpayers within SA; (ii) non-business taxpayers in SA with income exceeding the higher-rate threshold by up to £10k. Based on reported amounts, for group (i) it is 0.45% and for group (ii) it is 0.38%. Group (i) differs from the non-SA population in that it consists mainly of self-employed taxpayers, and group (ii) in that it consists of higher rate taxpayers. It is likely that both groups experience higher gains to income ratios than non-SA taxpayers since group (i) will enjoy gains on business assets and group (ii) have higher incomes which we suspect makes them more likely to own assets subject to chargeable gains. However, given that both groups generate a similar ratio, approximately 0.4%, we consider it reasonable to apply this ratio to the non-SA population, but to treat it as an upper bound.

The ratio may be biased due to underreporting of taxable income and taxable gains in groups (i) and (ii). Absent reliable information on this we assume that the fraction of actual taxable gains that is unreported is the same as the fraction of actual taxable income that is unreported, so that the calculated ratios are correct for each group. It would take a considerable difference in the rates of underreporting to change the 0.4% ratio substantially.

Adding £10bn for ghosts, moonlighters and incorrectly operated PAYE to the reported income from the non-return population for 2001/02 and applying the 0.4% ratio yields an estimate for total chargeable gains of £1,010m. However, it is necessary to make an adjustment for those taxpayers who are not routinely sent a tax return but who have completed one because they notified the Department of a gain. This reduces the estimate to £920m.

Gains may well take non-SA taxpayers into higher rate tax, so all we know is that the average tax rate on the unreported gains lies between 20% and 40%. At 20% this equates to a gap of £185m, and at 40% £370m.

Taking into account some of the uncertainty above, especially about the appropriate ratio of gains to income and about the average marginal tax rate, it is reasonable to give a range for this component of the tax gap of £100m-£400m for 2001/2.

As part of research into the buy-to-let market an alternative analytical approach has been used. This approach has the advantage of using a mixture of internal and external data sources. It generates estimates of the CGT-gap for property (strictly housing) transactions. Such estimates (which seeks to estimate the gap by first estimating the gross value of declared and undeclared gains) have an inherently high margin of error and are very sensitive to assumptions. However, in this case the approach is reasonable, and the figures generated are broadly consistent with the estimate based on internal data alone. Using a 20% tax rate the estimated gap is £80m in calendar 2001, £130m in 2002 and £400m in 2003. These figures cover both undeclared and avoided gains in both the non-SA and SA population, so a 20% tax rate clearly gives underestimates. One thing the figures do show is that the gap has probably grown considerably (with the increase in property values) since 2001/2.

Interest taxed at wrong rate.

Tax loss here arises from taxpayers who should be paying tax on their interest at the higher rate but do not because they do not receive a SA return. This is estimated by looking at the numbers of taxpayers who might fall into that category and statistics on the interest received.

Data
There are 2.12m individuals with annual income between £30,000 and £50,000. They receive interest of £1.13bn from banks and building societies – an average of £533 each.

Assumptions
10% of these individuals have not received an ITSA return and therefore have paid tax at 22% rather than 40%.

Calculation

The tax gap therefore is estimated to be 18% * 10% * 2.12m * £533 = £20m. Given the crude nature of the assumptions a range of +100%/-50% is used giving £10m to £40m. This calculation demonstrates that this risk is small compared to the risks due to undeclared capital gains and undeclared rental income.

Undeclared rental income.

This element of the tax gap is due to those with an employment source subject to PAYE who also have land and property income but do not report this to the Department because they are not sent a tax return. It does not cover underreporting of land and property income by those in the SA population, since this is included in the estimates based on random enquiries detailed above. It also excludes the loss due to the land and property income of those unknown to the Revenue who make a living from renting out property; this is included in the "ghosts" estimate.

Since we have little information about the land and property income of the non-return population, we assume that the ratio of land and property income to all other income in the non-return population is the same as that for the employed SA population just above the higher rate threshold. These are the taxpayers considered to represent the non-return population most closely. Owing to the PAYE system it is believed that the employment income of the employed SA population is reported reasonably accurately, whereas land and property income for the same taxpayers is underreported. To correct for this the ratio is uplifted by 33% based on the approximate fraction of business income found to be unreported in the random enquiry program. This ratio is applied to the known income of the non-return population to calculate the unreported land and property income. An adjustment is made for those employed taxpayers who would be in the non-return population were it not for the fact that have notified the Department of their land and property income an in consequence receive a return. This calculation produces a central tax gap estimate of £380m within a range £190m to £570m based on an arbitrary +/- 50% interval.

Problems with estimates. Based on assumptions rather than direct evidence

Improvements to methodologies. The obvious way to test these figures would be to issue returns to a random sample of the non-return population. But there are clearly problems in adopting that approach where we would be imposing a compliance burden for the sake of a statistical exercise into a group believed to be low risk

Table A25 – further work planned to refine and extend tax gap analysis for individuals who do not receive a tax return

Project	Deadline
More rigorous version of the Interest calculation	Summer 2005
Analysis of PSA1 buy to let initiative	April 2006
Exploration of an exercise to compile a wide ranging set of third party information for a sample of individuals who do not receive a return	Exercise to be designed over Summer 2005. If feasible first analysis likely in Summer 2006

9.   Methodology for estimating avoidance

Methodology for estimating Avoidance

9.1   Estimates of the ballpark level of avoidance can be produced by bottom-up methods – drawing on a number of separate internal sources (as below) which are by their nature partial in respect of definition or coverage or operational constraints.

The three primary sources are:
1.) SIS – this database gives yields of failed avoidance as detected by the SIS specialists and booked as yield in respect of their agreed share of the work. This could be from court cases or settlements. These figures are published in the Annual report and in various PQs;
2.) SCO - this database gives yields of what is usually agreed to be avoidance as detected by the SCO specialists and booked as yield in respect of their agreed share of the work. Certain adjustments have to be made to pull out what is in the main avoidance from evasion. The yield is in respect of failed avoidance;
3.) LBO - this database gives yields of what is usually agreed to be avoidance as challenged the LBO specialists and booked as yield in respect of their agreed share of the work. Certain adjustments are needed to split out joint work with SIS or SCO. The resultant yield is again from detection of avoidance schemes which are either defective in principle or defective in their implementation.

The ratio of defective to total avoidance
9.2   It is clear that the Revenue is only able to claim a yield from a proportion of all the avoidance schemes that are seen. There is no record kept of those schemes that are examined as possible defective avoidance but in the event is passed as within the tax code.

9.3   There is a further issue as to whether the Revenue actually sees all the avoidance that is potentially present in the tax computations but which for various reasons is either ticked or overlooked.

9.4   Anecdotally there are many views on what the Revenue misses. There is one survey of FTSE finance directors which is quoted frequently and which is based on a late 1990s study by DeLoitte that the Revenue only sees 50% of what avoidance there is out there. Other commentators think the Revenue sees less than half. While there is a body of feeling in the Revenue that the Inspectors see a lot of what is claimed as missed but take the view that they cannot challenge it or are not resourced for a challenge on the lesser schemes.

9.5   These views feed into the next step which is to set a range for the ratio of defective avoidance to total avoidance. The rule of thumb that is used in the bottom-up study is the 90:10 rule. This is for each 10 of yield that is obtained there is 90 that is not obtained. That is 90% of avoidance is successful as the law stands. There is no strict empirical basis for the 90:10 rule, but without this rather subjective view there is no way to gross up from defective avoidance to total avoidance. It is this absence of real empirical support that makes the bottom up method not very reliable or credible except with very wide ranges of uncertainty.

9.6   There is one top down method based on the fee income of accountants. There are aggregate estimates of fee income from tax work published in Accountancy Age in respect of the Top 50 accountancy firms in the UK. In principle this is accurate though quite what exactly tax work is may be in doubt. The biggest problem is to conceive of how to split tax between categories of : basic tax preparation for the computation (core tasks), more highly remunerated work on tax planning which is conceived as optimising the timing of the use of reliefs and allowances, and a third category of avoidance work. The third category is known to be the most remunerative, though also high risk and a possibility of reputational damage if schemes fail.

9.7   There is a detailed methodology for splitting between core, tax planning and avoidance based on some reasonable empirical work on the compliance costs of tax that is interpreted to isolate core and tax planning from avoidance. The result is that some 50% of total fees are earned from avoidance.

9.8   The resultant estimate for fee income earned from avoidance is thought to be of reasonable accuracy. This is used to drive the estimate of total avoidance across all taxes (VAT excluded) because the avoidance fees are related to the tax saved for the client.

9.9   The internal sources and interviews with ex-practitioners suggested that a fee bite equivalent to about 20% of the tax saved was quite reasonable. The fees for an avoidance scheme would be split between the top accountants and others in a ratio of about 50:50 where the others were earning fees in respect of tax counsels' opinions payments to solicitors in respect of contracts , fees to marketing and possibly some fees to investment banks in respect of derivatives as counter parties. etc. The bottom line is that top accountants capture 10% of the total tax. This 10:1 factor is used to gross up from accountants fees to estimate the total amount of avoidance from schemes.

9.10   The top down estimate is thought to have a stronger pedigree than the bottom-up in respect of the amount of avoidance from schemes involving third parties. The comparison is not exact because work done in house by major corporates is not caught in this grossing. A separate adjustment is needed in respect of in-house tax work, especially necessary to capture the value of avoidance schemes generated internally by the largest banks and insurers etc. The adjustment is largely ad hoc but it shows a ratio of about 3: (using third parties to1 using in-house).

Disaggregating the Avoidance Estimate

9.11   This section sets out the reasoning behind the disaggregation of the overall estimate of avoidance of £10bn of direct taxes subject to a wide range of confidence. Say £5 bn to £15 bn. The top down estimate of avoidance is preferred to the bottom up on grounds of internal consistency. In practice and with the wide confidence ranges the two bases are not far apart; and so there is mutual support for a heavily rounded and central estimate of £10bn.

9.12   There is a major factor to consider in whether the avoidance is essentially purchased as schemes from the big accountants or whether it is derived in house. The

City Banking institutions and associated financial specialists together with Insurance and the big oil groups are known to have in-house tax teams.

9.13   Our estimates of fee based income are thought to be good for predominantly purchased schemes; but not valid for in-house avoidance.   A series of scaling adjustments and some plausibility test suggests that in house is about one third of the schemes purchased from the big accountants. This is adopted:
- In house (predominantly Banking and finance + Oil) £2.5bn
- Purchased avoidance (all other sectors) £7.5bn

9.14   It is thought that working the disaggregation off the in-house versus external split makes for a better representation of what is happening and certainly better for getting at the unique features of Banking/Finance in the City.

9.15   The in-house £2.5bn is thought to have a heavier component of CT avoidance than employment than average. The ratio adopted is 80:20 against the preliminary indication of 60:40 for the ratio of schemes disclosed (Source preliminary split of financial to employment for disclosures received before 30 Sept 2004).
- Banking Finance   predominantly CT   £2 bn
- Banking Finance   predominantly IT/NICs £500 mn.

9.16   The external £7.5bn is thought to have a heavier component of IT avoidance than employment than average. The ratio adopted is 40:60 against the preliminary indication of 60:40 for the ratio of schemes overall as at 30 Sept

9.17   The first step is to do a three way split between financial, employment and other. We have adopted £6bn as the baseline for financial and employment (as used in Budget 2004 baseline). This implies after rounding
- CT from outside the banking/finance sector £2.5bn
- IT/ NICs from outside the banking/finance sector £3.5bn.

9.18   The other is a mixture of stamps and IHT which cannot be reasonably split further and is estimated as a residual. In this case the errors are probably even wider. The customer segment analysis used for general non-compliance does not fit naturally with these avoidance estimates. Hence no further disaggregation is thought practicable.

9.19   In early autumn 2004 Stephen Bibby was asked to report on the QIPS shortfall for LBO groups. This study included an ad hoc survey of Case Directors to assess whether from risk assessments they could classify their cases as non-avoiders, opportunistic avoiders or serial avoiders. Directors were asked to assess the amounts of tax at risk from what Inspectors understood to be avoidance. The initial sample size was subsequently expanded to allow meaningful estimates. The preliminary indications are that on the basis of about 100 of the largest LBO cases we have in excess of £3bn of tax at risk from avoidance for the latest year (2002/03).

Table A26 – further work planned to refine and extend tax gap analysis for avoidance

Project	Deadline
Effective Tax Rate analysis for individuals	Summer 2005
Exploration of a more structured approach to gathering the judgements of LBS compliance workers that is specifically geared to measurement of the tax gap.	Feasibility analysis by close of 2005
Analysis based on improved data provided by the Better Data for CT project. In particular Effective Tax Rate analysis.	Longer term
Bibby Report a study of the characteristics and amount of CT avoidance in the large business sector 2002/03	Benchmark estimate for LBO in 2002/03expected April/May 05
Analysis of avoidance schemes notified through disclosure legislation. Inference based on the number of disclosures – no direct yield, but essential for early warning of abusive schemes been made available by agents. Between 1 August 2004 and 13 March 2005 506 disclosures had been sent in – splitting be340 financial products and 166 employment products.	Some opportunity to match schemes to taxpayers expected to be available from early 2006

10.   Non payment estimates

Each year the Inland Revenue writes off certain amounts of unpaid tax because these are impossible to recover, or because a decision has been taken not to pursue them. The most common reason for this is insolvency of the taxpayer. Recently the total amount of outstanding liabilities has been relatively constant, indicating that the total amount of debts written off each year is equal to the net amount of non-payment. That is the total written off is broadly equal to the sum of new liabilities unpaid by the due date less the amount of overdue liabilities recovered in the year. Consequently the average amount of debt written off is used as an estimate of the contribution of non-payment to the tax gap.

The steps in the analysis are shown in the two tables below.

Table A27 - remissions and irrecoverable debts - Table 15 2004 Board's report.

Area	2003(£m)	2001(£m)	Average(£m)
IT (excl. PAYE)	144.062	164.822	154.442
PAYE	201.405	202.954	202.179
CT	224.981	125.989	175.485
CGT	4.337	9.485	6.911
IHT	0.995	1.206	1.101
Stamps	0.506	0.007	0.257
Other	2.302	2.106	2.204
Total Revenue duties	578.588	506.569	542.579
NICs (excl. NICO) Classes 1, 1A, 1B	147.479	39.189	93.334
NICs (excl. NICO) Class 4	5.080	11.338	8.209
Total	731.147	557.096	644.122

Source – Table 15 2004 Board's report

Table A28 remissions and irrecoverable debts by Head of Tax

Head of tax	Average amount remitted
IT/CGT/NIC	465.076
CT	175.485
IHT	1.101
Stamps	0.257
Other	2.204
Total	644.122

These are exact figures – so there is no need for ranges.

Table A29 – further work planned to refine and extend tax gap analysis for non-payment

Project	Deadline
Exploration of age of debt	Longer term
Exploration of other measures	Longer term

11.   Comparisons with other estimates

Most of these estimates are based on analysis of internal enquiry/risk assessment data. It has been a common theme throughout this paper that estimates based solely on enquiry/risk assessment data will tend to underestimate the true extent of the tax gap. This leads us to apply a series of adjustments to these estimates in order to give a truer picture of the possible extent of the tax gap. In doing this it is important to check how these estimates match up with others work that has a connection with the tax gap. These comparisons are described here along with plans to do further work to develop these types of checks.

Note that in practice all of the checks described relate to the tax gaps associated with small businesses. This reflects the level of interest in academia surrounding the hidden economy. In academic work the hidden economy is usually taken to cover a wider definition than the ghosts/moonlighter definition used here and would also include underreporting by the self-employed and small companies.

National Accounts.   ONS make an adjustment in GDP for the "hidden economy" However this is limited to the difference between hidden income and hidden expenditure. No adjustment is made for any expenditure not captured by the ONS, which masks the under-reporting of income. Furthermore, not all income that is unreported for tax purposes is hidden from the ONS, which uses other sources, such as DEFRA data on agricultural incomes. The adjustment for 2002 was £17bn, which can be taken as a lower bound estimate of the hidden economy. This figure corresponds to a tax risk of around £4bn - which is somewhat lower than the estimates here for the self-employed, small companies, moonlighters and ghosts (£6.8 to £13.7bn).

Econometric methods. Great care has to be with taken with the econometric methods of examining the extent of the hidden economy. In the same year estimates have ranged from 2 – 22% of GDP. As Colin Williams points out:- "Unless the measurement technique being used in each case, the reasons underlying these variations will not be appreciated. Nor will one realize how many of the assertions about the nature of cash-in-hand work are assumptions, rather than findings, of the specific technique being used."[4]

We have put most faith in the econometric analysis of FES data by the IFS[5] (and subsequently by IR). This indicates that underreporting by the self-employed could lie anywhere between 20% and 50% of their reported income. Under some broad assumptions, the 20%-50% range corresponds to a tax gap of £6bn-£18bn, which overlaps our range for the self-employed and small companies (£5.5 to £8.7bn), but is somewhat higher.

Recent research along these lines by academic econometricians Lyssiotou, Pashardes and Stengos[6] suggests an even larger level of underreporting - on average understating income by 90% of reported income. It is hard to accept that the Self-Employed conceal almost half their income. That would imply that enquiries actually discover

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[4] "Cash-in-hand work : the underground sector and the hidden economy of favours" Colin C Williams
[5] Citation for IFS work
[6] Citation

5-10% of underreported income. And underreporting on this scale would surely show up in the national accounts in a large imbalance between the income and expenditure methods of estimating GDP. This recent work, although implausible in itself, has cast some doubts on the reliability of the earlier work and called into question whether this method can be used to validate random enquiry measures of the extent of non-compliance by the self-employed. Other academic work on the hidden economy, though not theoretically robust, produces estimates broadly in line with Lyssiotou et al. This serves to emphasise that whilst the figures we have arrived at for the self-employed are large they are at the low end of current opinion regarding reporting of income by the self-employed.

Comparison to VAT estimate.

It is tempting to try to compare the direct tax gap estimates for the self employed and small companies against the VAT gap estimates. The hypothesis being that non-compliant taxpayers will understate their income equally to evade income tax and VAT. In practice this comparison is not simple. A proper comparison would demand:-
- a deeper understanding of what types of non-compliance affect both VAT and income tax;
- a precise comparison of populations.

This is clearly work that needs to be considered as part of the creation of a new joint department.

Use of Offshore Accounts for evasion

Most of the use of offshore accounts for **evading** tax is thought to lie with the self-employed and company directors. So logically the estimate of the use of offshore accounts for evasion sits within the estimate for small businesses. Nevertheless this type of tax evasion is thought to be so significant that it merits separate estimation of the consequent tax loss:-
- To help validate the overall tax gap estimates for small companies and the self employed;
- To inform initiatives designed to attack the use of offshore accounts to facilitate tax evasion.

The estimate of tax loss due to use of accounts of offshore accounts for evasion is based upon an analysis of bank deposits by UK individuals in tax havens.

The Financial Services Authorities (FSA's) in the Channel Islands and the Isle of Man collect statistical information of bank deposits held in their jurisdictions. Between them they have published £48bn saved in banks by UK residents. The information does not determine between different types of interest bearing or non interest bearing accounts.

Datamonitor collect statistics from the FSAs in CI and IoM and also in many of the worlds 'tax haven' countries. Since the source of the headline figures comes from the FSAs the Datamonitor figures are fairly robust.

The most recent data we have comes from the FSAs in CI and IoM. The Datamonitor figures are then used to apply an estimate for the other tax havens. This equates to over £80bn (£48bn in CI & IOM and £34b in the other tax havens).

From the ELS returns on SA we know how much interest was declared in each of these tax havens.
For CI & IOM this equates to £317m for the other tax havens this equates to £55m.

Assumptions:
1   The difference between savings declared on SA and savings declared by the FSA/Datamonitor implies a tax risk.

2   Interest is earned at an average of 2% in all tax havens.
       (Taken from a sample of banks in CI)

3   Income is subject to tax at an average rate of 33%
       (This has been calculated from individuals in the CCP data and generally for individuals declaring offshore interest in SA, 60% are high rate tax payers and 40% are standard rate.)

4   A proportion of accounts hold undeclared capital, assumed to be between 20%-40%.
       (From the BOI trust cases SCO established approximately 30% of the trusts with undeclared capital.)

5.   30% of the value of offshore accounts attributed to UK residents will be affected by domicile issues. (As experienced by the BOI trusts data).

The accounts have been opened for an average of 5 years. (As experienced by the BOI trusts data).

% UK Domocile	% of hidden Capital	Number of years held	Average tax rate	Interest rate earned
70%	20%-40%	5	33%	2%

Annual Tax Gap £millions

	Interest Only	Capital @20% undeclared	Capital @40% undeclared	Total	
BAHAMAS	12	24	48	36	60
BERMUDA	2	4	8	6	10
BRITISH VIRGIN ISLANDS	1	2	4	3	5
CAYMAN ISLANDS	32	63	126	95	158
HONG KONG	17	34	68	51	85
ISLE OF MAN	**28**	**56**	**111**	**83**	**139**
LUXEMBOURG	7	15	29	22	36
NETHERLANDS ANTILLES	2	4	8	6	11
SINGAPORE	18	35	71	53	88
SWITZERLAND	56	112	224	168	280
CHANNEL ISLANDS	**120**	**240**	**479**	**360**	**599**
Total	294	588	1,177	882	1,471
CI & IOM	148	295	591	443	738
Others	146	293	586	439	732
Total	**294**	**588**	**1,177**	**882**	**1,471**

Therefore our estimate of annual loss of tax through evasion using offshore bank accounts is between £0.9bn and 1.5bn. This level of evasion using offshore accounts is more compatible with the higher end of the ranges for the self employed and small companies.

Further work to compare HMRC tax gap estimates with other work

Table A30 – further work planned to compare Inland Revenue tax gap estimates with other sources of information.

Project	When
Consultation with VAT gap analysts to scope methods for comparing the tax gap estimates	Summer 2005
New econometric analysis of underreporting by the self-employed and small companies, using the latest available survey data and incorporating methodological improvements in recent academic work and further enhancements using internal data	2006
Use of offshore bank accounts for evasion – measurement of the effects of the European Savings Directive	April 2006
Use of offshore bank accounts for evasion - analysis of results of offshore credit cards initiative	First analysis April 2006

ERRATA for *Estimation of tax gap for direct taxes*

In table 4.1 of the paper *Estimation of tax gap for direct taxes* there are two transcription errors. These errors transposed the General non-compliance estimates for Inheritance Tax with those for Stamp Duty, and also transposed the Non Payment estimates for Income Tax, CGT and National Insurance Contributions with those for Corporation Tax.

A corrected version of the table is shown below:

Table 4.1 – Point and range estimates of net tax gap by direct tax type (£bn)

Direct Tax	General non-compliance			Avoidance			Non Payment			Total		
	Point	Lower	Upper	Point	Lower	Upper	Point	Lower	Upper	Point	Lower	Upper
Income Tax CGT National Insurance Contribution	8.1	3.7	17.1	3.9	1.9	5.9	0.5	0.5	0.5	12.5	6.1	23.4
Corporation Tax	2.9	1.4	6.9	4.4	2.1	6.6	0.2	0.2	0.2	7.4	3.7	13.7
Inheritance Tax	0.1	0.1	0.4	1.5	0.7	2.2	0.0	0.0	0.0	2.0	1.0	3.5
Stamp Duty	0.5	0.2	1.0				0.0	0.0	0.0			