This briefing analyses the available statistical data on income tax in Scotland and discusses what progress has been made on the implementation of SRIT.

The Scotland Act (2012) introduces a Scottish rate of income tax (SRIT) which will apply to the non-savings and non-dividend income of Scottish taxpayers from 1 April 2016, i.e. income from employment, self-employment, pensions and rental income. The UK Government will deduct 10 pence in the pound from the basic, higher and additional rates of income tax. The Scottish Parliament will then have the power to levy a Scottish rate that will apply equally across these three main tax bands.

The Scotland Bill 2015-16 gives the Scottish Parliament the power to set the rates of income tax and the thresholds (without limits) at which these are paid for the non-savings and non-dividend income of Scottish taxpayers.
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EXECUTIVE SUMMARY

- **Scotland Act (2012):**
  - Introduces the Scottish Rate of Income Tax from April 2016
  - Applies to non-savings and non-dividend (NSND) income i.e income from earnings
  - Power to vary SRIT uniformly at the basic, higher and additional rate
  - Adjustment to the block grant using the Holtham Indexation method after a two or three year transition period (details under negotiation)

- **Scotland Bill 2015-16:**
  - Devolves income tax on NSND income
  - Power to set the rates and bands (without limits) including a zero rate of tax
  - No power over Personal Allowance
  - Adjustment to the block grant under negotiation

- **Taxpayers in Scotland in 2015-16:**
  - 2.52 million (8.5% of UK taxpayers)
  - 82.9% of taxpayers are charged at the basic rate, 14.8% at the higher rate, 0.7% at the additional rate (17,000 people)
  - Smaller proportion of lowest income and highest income taxpayers in Scotland compared to the UK as a whole

- **Income tax in Scotland:**
  - Mean taxable income and mean income tax revenue remain lower than in the UK as a whole in 2015-16
  - Total income tax revenue: £11,410 million in 2013-14
  - NSND income tax revenue: £10,911 million in 2013-14, equal to 95.6% of total income tax

- **SRIT revenue:**
  - £4,258 million in 2013-14
  - Equal to 39.0% of NSND income tax revenue
  - Equal to 37.3% of total income tax revenue in Scotland

- **Setting SRIT:**
  - Rate for 2016-17 set to be announced in the Scottish Draft Budget
  - Setting SRIT above 10p will make income tax “less progressive”
  - Setting SRIT below 10p will make income tax “more progressive”

- **Behavioural responses:**
  - Tend to be carried out, if at all, by the highest income taxpayers
  - Very difficult to predict with an impact that is difficult to estimate
  - Likely to be influenced by the divergence between:
    - Scottish income tax and income tax in the rest of the UK
    - Scottish income tax on earnings and UK tax on dividends and on savings interest
INTRODUCTION

This briefing summarises the most recent data available on income taxpayers, taxable income and income tax revenue in Scotland. It also discusses the implementation of SRIT and models the potential effect of illustrative changes in SRIT.

SPICe published a briefing on The Scottish rate of income tax and additional rate taxpayers (Berthier 2014) which looked at the characteristics of additional rate taxpayers in Scotland, the effect of changing SRIT on tax revenues including the potential behavioural response of additional rate taxpayers.

The Scotland Act 2012 introduces the power for the Scottish Parliament to set a Scottish Rate of Income Tax (SRIT) from April 2016. The UK Government will deduct 10 pence in the pound at the basic, higher and additional rates of income tax on the non-savings and non-dividend (NSND) income for Scottish taxpayers, i.e. income from employment, self-employment, pensions and rental income. The Scottish Parliament will then set SRIT which will apply equally to these three rates. Scottish taxpayers will thus pay a “UK income tax” (to the value of 10p in the pound less than taxpayers in the rest of the UK) plus SRIT. Thus if SRIT is set at 10p, income tax will remain the same for Scottish taxpayers as in the rest of the UK.

Scottish taxpayers are defined in relation to their place of residence. Scottish taxpayers will still pay all their income tax to HM Revenue and Customs (HMRC) and will be identified by their tax code. The revenue from SRIT will accrue to the Scottish Government and the Scottish block grant will be decreased to reflect this loss of revenue by HM Treasury.

SRIT will supersede the existing tax varying power, the Scottish Variable Rate (SVR) set out in the Scotland Act 1998 which gave the Scottish Parliament the power to vary up to 3 pence in the pound at the basic rate of income tax. This power was never used.

The Scotland Bill 2015-16 includes provisions for the Scottish Parliament to set the rates of income tax and the band thresholds on the NSND income of Scottish taxpayers. The Parliament will not have the power to change the personal allowance threshold but will be able to introduce a zero pence rate which could effectively increase the personal allowance threshold. It will not be able to introduce different rates for different types of income (for example it cannot create a separate income tax rate for pension income). The devolution of income tax will supersede SRIT. The block grant will have to be adjusted to reflect the devolution of income tax. Negotiations on this matter are currently under way between the Scottish and UK Governments in the context of agreeing Scotland’s fiscal framework. The official forum for these discussions is the Joint Exchequer Committee which met most recently on 9 October 2015 (UK Government 2015a).

INCOME TAX

BACKGROUND

UK income tax is a levy imposed on individuals that varies with the taxable income of the taxpayer. Income tax is divided into graduated rates and is progressive, that is to say high income individuals have a higher rate of tax than lower-income individuals. Progressive taxes aim to achieve “a more equal distribution of income after than before taxation” (OECD 2013).

There are three types of income for income tax purposes:
- All income other than savings and dividends. This is often referred to as “earned income” and includes pay from employment but also trading profits from self-employment and unincorporated businesses, pensions (state, occupational and personal), taxable benefits (e.g. Jobseeker’s Allowance) and income from property.
- Savings income (e.g. bank and building society interest, interest from unit trusts and open ended investment companies).
- Dividends (income from UK-resident company shares, dividends from unit trusts and open ended investment companies).

UK income tax rates are marginal tax rates. The marginal tax is the percentage taken from the next pound of taxable income and is applied to income within each applicable tax bracket. For example the additional rate of income tax is charged only on taxable income above the threshold of £150,000. The UK has three main rates of income tax: basic, higher and additional. Taxpayers receive a Personal Allowance for an amount of income they receive without being charged on it. Personal Allowance tapers off for incomes over £100,000 at a rate of £1 for every £2, so the allowance is zero for income £121,200 or above (UK Government 2015b).

Table 1 shows the standard Personal Allowance\(^1\) and income tax rates for 2015-16 to 2017-18.

<table>
<thead>
<tr>
<th>Income tax bands and rates, 2015-16 to 2017-18</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Standard Personal Allowance</strong></td>
</tr>
<tr>
<td>Basic rate 20%</td>
</tr>
<tr>
<td><strong>£10,600</strong></td>
</tr>
<tr>
<td><strong>£0 to £31,785</strong></td>
</tr>
<tr>
<td>Higher rate 40%</td>
</tr>
<tr>
<td><strong>£31,786 to £150,000</strong></td>
</tr>
<tr>
<td>Additional rate 45%</td>
</tr>
<tr>
<td>Over £150,000</td>
</tr>
</tbody>
</table>

Source: UK Government 2015b, 2015c

Income tax - Illustrative examples for 2015-16

- A taxpayer with £35,000 of taxable income will pay only the basic rate of income tax and will pay tax on £35,000 – £10,600 = £24,400.
- A taxpayer with £50,000 of taxable income is a “higher rate taxpayer” and is taxed on £50,000 - £10,600 = £39,400. They pay the basic rate on £31,785 and the higher rate on £39,400 - £31,785 = £7,615.
- A taxpayer with £200,000 of taxable income has no personal allowance. They pay the basic rate on £31,785, the higher rate on £150,000 - £31,785 = £118,215 and the additional rate on £50,000.

The higher rate threshold (i.e. the threshold at which people with standard Personal Allowance start paying the higher rate) is £42,385 in 2015-16, £43,000 in 2016-17 and £43,600 in 2017-18 (HMRC 2015c). The UK Government has pledged to increase the higher rate income threshold to £50,000 by the end of this parliament (UK Government 2015d).

In addition to Personal Allowance, taxpayers may be entitled to other reliefs and allowances that can reduce their tax bill.

Savings and dividends are taxed at different rates. Table 2 shows UK dividend tax rates in 2015-16.

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\(^1\) Personal allowance may be bigger for people born before 6 April 1938, people receiving Blind Person’s Allowance.
Table 2 Dividend tax rates, 2015-16

<table>
<thead>
<tr>
<th>Rate</th>
<th>Basic rate (and non-taxpayers)</th>
<th>Higher rate</th>
<th>Additional rate</th>
<th>Additional rate – dividends paid before April 2013</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>0%</td>
<td>25%</td>
<td>30.56%</td>
<td>36.11%</td>
</tr>
</tbody>
</table>

UK Government 2015e

The 2015 Summer Budget proposes to remove the Dividend Tax Credit and replace it with a new tax-free Dividend Allowance of £5,000 a year for all taxpayers from April 2016. It also set new rates shown in Table 3.

Table 3 Summer Budget 2015 proposals for dividend tax rates above the Allowance, 2016-17

<table>
<thead>
<tr>
<th>Rate</th>
<th>Basic rate</th>
<th>Higher rate</th>
<th>Additional rate</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>7.5%</td>
<td>32.5%</td>
<td>38.1%</td>
</tr>
</tbody>
</table>

Source: UK Government 2015d

Savings are currently automatically taxed at 20% (UK Government 2015b). People on low incomes may be able to get tax-free interest or some of the tax back. Higher or additional rate taxpayers need to pay more tax (UK Government 2015b). From 6 April 2016 the UK Government will introduce an allowance to remove tax on up to £1,000 of savings income for basic rate taxpayers and up to £500 for higher rate taxpayers. Additional rate taxpayers will not receive an allowance (UK Government 2015f). Automatic deduction of 20% income tax by banks and building societies on non-ISA savings will cease from the same date (UK Government 2015b).

Savings and dividend income is taxed as the highest part of a person’s total income and dividend income is taken as the highest part of the combined amount if a person has both savings and dividend income. Therefore the first slice of a person’s income comprises earnings, pensions, taxable social security payments, trading profits and income from property. The next slice is savings income and dividend income is the top slice (HMRC 2015a).

The marginal tax is different from the average tax rate, which is the ratio of income tax liability to total income, where income is measured before deductions, reliefs and allowances. Deductions, allowances and tax credits vary across individuals leading to differences in individual average tax rates over and above differences in individual incomes.

Figure 1 shows the average rate of tax by income range for 2015-16 in the UK. The average rate of tax across all ranges is 17.2%.
A progressive tax is one where the average rate of tax rises as income rises. As shown in Figure 1, income tax is progressive. For example, the average tax rate for people with a taxable income between £10,600 and £15,000 in 2015-16 is 3.1% while for taxable incomes between £100,000 and £150,000 is almost ten times that, at 30.0%.

The overall average income tax rate in the UK is 17.2% in 2015-16, down from 17.4% in 2012-13 (HMRC 2015b). Over this period, average tax rates have fallen in all the income brackets and most markedly for those income groups below £30,000. This is mainly due to increases in Personal Allowance which have a bigger impact on lower income groups. Thus their impact on average tax rates becomes progressively smaller as income rises (HMRC 2015c), with no impact at all for those earning over £121,200 as they have no Personal Allowance.

### Taxes and tax rates

- **Marginal tax rate**: Percentage of tax taken from the next pound of taxable income above a pre-defined income threshold. There are three main marginal tax rates: basic, higher and additional.

- **Average tax rate**: Ratio of income tax liability to total income (measured before deductions, reliefs and allowances).

- **Progressive tax**: A tax for which the average rate rises as income rises.

### TAXPAYERS

In 2015-16 there were an estimated 29.7 million income taxpayers in the UK and 2.52 million taxpayers in Scotland (HMRC 2015b), equal to 8.5% of all taxpayers in the UK. In comparison, the UK population mid-2014 (latest data available) was 64.6 million and Scotland’s population was 5.35 million, equal to 8.3% of the total UK population (ONS 2015).

Table 4 shows the number and percentage of taxpayers by marginal tax rate in Scotland and the UK.

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2 Projected estimates based upon the 2012-13 Survey of Personal Incomes using economic assumptions consistent with the OBR’s March 2015 economic and fiscal outlook.
Table 4 Number of taxpayers (thousands) by marginal tax rate, Scotland and UK, 2015-16

<table>
<thead>
<tr>
<th></th>
<th>Savers rate</th>
<th>Basic rate</th>
<th>Higher rate</th>
<th>Additional rate</th>
<th>All taxpayers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Scotland</td>
<td>41</td>
<td>2,090</td>
<td>372</td>
<td>17</td>
<td>2,520</td>
</tr>
<tr>
<td>UK</td>
<td>691</td>
<td>24,000</td>
<td>4,650</td>
<td>332</td>
<td>29,700</td>
</tr>
</tbody>
</table>

Source: HMRC 2015b

Figure 2 shows taxpayers by marginal tax rate as a share of total taxpayers in Scotland and the UK in 2015-16.

**Figure 2 Number of taxpayers by marginal income tax rate as share of total taxpayers (%), Scotland and UK, 2015-16**

![Taxpayer Distribution Bar Chart]

The vast majority of taxpayers are basic rate taxpayers (82.9% in Scotland compared to 80.8% in the UK as a whole). Higher rate taxpayers account for 14.8% of taxpayers in Scotland (15.7% in the UK as a whole) and additional rate taxpayers account for only 0.7% of taxpayers in Scotland. This is markedly lower than the UK as a whole where 1.1% of taxpayers are additional rate taxpayers.

In order to understand in more detail what accounts for the differences highlighted in Figure 2, Figure 3 shows taxpayers by income bracket as a share of total taxpayer numbers in 2012-13 (most recent data available at this level of breakdown).

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3 Taxpayers at the “savers rate” in 2015-16 are those who pay no tax on their savings interests (if their taxable income is less than £15,600) or who qualify for a refund on some of the tax on their savings interest (if taxable income is less than £15,600 when savings interest is not included) (UK Government 2015g).

4 Projected estimates based upon the 2012-13 Survey of Personal Incomes using economic assumptions consistent with the OBR’s March 2015 economic and fiscal outlook (HMRC 2015b).
In 2012-13, Scotland had a lower percentage of taxpayers at both the lowest and the highest values on the income scale compared to the UK as a whole. Scotland also had proportionately more people with taxable incomes between £15,000 and £50,000.

Concerning additional rate taxpayers, the main difference between Scotland and the UK concerned taxpayers whose incomes were over £200,000: 0.3% of taxpayers in Scotland had incomes between £150,000 and £200,000 (close to the UK share at 0.4%) but 0.3% of taxpayers in Scotland also had incomes above £200,000 while twice that share (0.6%) of taxpayers in the UK as a whole had incomes above £200,000.

Figure 4 shows the annual change in taxpayer numbers in Scotland from 2013-14 to 2015-16. It shows that the number of basic rate taxpayers has been decreasing and the number of higher rate taxpayers and additional rate taxpayers has been increasing. This is likely to be mainly a result of changes to Personal Allowance and the higher rate threshold rather than changes in income. However, the additional rate threshold remained the same throughout and additional rate taxpayers do not benefit from Personal Allowance so their increased number is caused to rising incomes at the top end.
The number of higher rate and additional rate taxpayers has been increasing but at a diminishing rate between 2013-14 and 2015-16. The number of basic rate taxpayers decreased sharply in 2013-14 (-5.4%) whereas it decreased by 0.5% in both 2014-15 and 2015-16. This big decrease in 2013-14 may be due to the sharp rise in Personal Allowance in 2013-14 as shown in Table 5.

Table 5 Personal allowances and annual percentage change, 2012-13 to 2015-16

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Standard Personal Allowance</td>
<td>8,105</td>
<td>9,440</td>
<td>10,000</td>
<td>10,600</td>
</tr>
<tr>
<td>% change</td>
<td>8.4%</td>
<td>16.5%</td>
<td>5.9%</td>
<td>6.0%</td>
</tr>
</tbody>
</table>

Source: UK Government 2015h, SPICE calculations

As a result of the trends shown in Figure 4, the number of basic rate taxpayers is decreasing as a share of total taxpayers while the number of higher rate taxpayers and additional rate taxpayers as a share of total taxpayers is increasing. This implies that higher and additional rate taxpayers have contributed proportionally more to income tax from 2012-13 to 2015-16 in the UK as a whole.\(^5\)

**TAXABLE INCOME AND INCOME TAX REVENUE**

**General information**

Table 6 shows total taxable income (the “tax base”) and income tax revenue\(^6\) in 2012-13 (latest data available) in the UK and Scotland.

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\(^5\) Income tax revenue and income tax by marginal tax rate (i.e. basic, higher and additional rate taxpayers) in Scotland is not published annually by HMRC or publicly available.

\(^6\) Revenue is measured in liabilities, not receipts unless otherwise specified.
Table 6 Total taxable income and total income tax revenue, UK and Scotland, 2012-13

<table>
<thead>
<tr>
<th></th>
<th>Total taxable income (£m)</th>
<th>Total income tax revenue (£m)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Scotland</td>
<td>72,100</td>
<td>11,300</td>
</tr>
<tr>
<td>UK</td>
<td>904,000</td>
<td>157,000</td>
</tr>
</tbody>
</table>

Source: HMRC 2015d

In 2012-13 income tax represented a higher share of total taxable income in the UK (17.4%) as a whole than in Scotland (15.7%) i.e. average tax rates are higher in the UK as a whole than in Scotland.

Table 7 shows mean total income and mean income tax in the UK and Scotland in 2012-13 (latest data available).

Table 7 Mean taxable income and mean income tax revenue, UK and Scotland, 2012-13

<table>
<thead>
<tr>
<th></th>
<th>Mean income (£)</th>
<th>Mean income tax (£)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Scotland</td>
<td>27,800</td>
<td>4,380</td>
</tr>
<tr>
<td>UK</td>
<td>29,600</td>
<td>5,140</td>
</tr>
</tbody>
</table>

Source: HMRC 2015d

Mean income in Scotland in 2012-13 was £27,800. This was 6.1% lower than in the UK as a whole. Mean tax liabilities in Scotland were £4,380 or 15% lower than in the UK as a whole.

Table 8 shows income tax revenue by marginal rate of tax in Scotland in 2012-13 (only year available).

Table 8 Income tax revenue (£ million), Scotland, 2012-13

<table>
<thead>
<tr>
<th>Taxpayers marginal rate</th>
<th>Basic rate</th>
<th>Higher rate</th>
<th>Additional rate</th>
<th>Total</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Basic rate</td>
<td>5,440</td>
<td>1,950</td>
<td></td>
<td>7,480</td>
<td>66.2%</td>
</tr>
<tr>
<td>Higher rate</td>
<td></td>
<td>2,390</td>
<td></td>
<td>2,990</td>
<td>26.5%</td>
</tr>
<tr>
<td>Additional rate</td>
<td></td>
<td></td>
<td>874</td>
<td>870</td>
<td>7.7%</td>
</tr>
<tr>
<td>Total tax</td>
<td>5,440</td>
<td>4,330</td>
<td>1,570</td>
<td>11,300</td>
<td>100.0%</td>
</tr>
<tr>
<td>%</td>
<td>48.1%</td>
<td>38.3%</td>
<td>13.9%</td>
<td>100.0%</td>
<td></td>
</tr>
</tbody>
</table>

Source: HMRC 2015e

In 2012-13 basic rate taxpayers in Scotland paid 48.1% of total income tax revenue, higher rate taxpayers paid 38.3% and additional rate taxpayers paid 13.9% of total income tax. Tax revenue charged at the basic rate accounted for 66.2% of total income tax revenue in Scotland, tax charged at the higher rate accounted for 26.5% and tax charged at the additional rate accounted for 7.7%.

**Income tax revenue by income bracket**

The distribution of income tax revenue by income bracket is different in Scotland from the UK as a whole. Figure 5 shows the percentage of tax paid by each income bracket in Scotland and the UK as a whole in 2012-13 (latest data available).
Figure 5 Share (%) of income tax revenue by income range (lower limit), Scotland and UK, 2012-13

In 2012-13, taxpayers with incomes between £30,000 and £50,000 paid the single largest share of income tax (26.1% in Scotland and 21.7% in the UK as a whole). Taxpayers with incomes over £200,000 paid 20.1% of total UK income tax whereas in Scotland they only paid 10.5% of total income tax.

Figure 6 shows income tax in Scotland by income bracket as a percentage of income tax in the UK as a whole in 2012-13 (latest data available). For example, 3.8% of income tax revenue paid by taxpayers with incomes above £200,000 in the UK was paid by taxpayers in Scotland.
Scotland’s population share of the UK in 2012-13 stood at 8.3% (ONS 2013, 2014). For income brackets below £8,105 and above £50,000, the Scottish share of UK income tax is below Scotland’s population share of the UK. Only 3.8% of income tax revenue on incomes over £200,000 are paid in Scotland, significantly less than Scotland’s population share of the UK as a whole.

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7 Scotland’s population share of the UK is worked out for the tax year 2012-13 i.e. taking 75% of mid-2012 and 25% of mid-2013 population estimates (ONS 2013, 2014).
Income tax revenue by source of income

Figure 7 shows the breakdown in income tax revenue by source of income in Scotland and the UK in 2012-13 (latest data available).

**Figure 7 Share of income by income type (%), Scotland and UK, 2012-13**

![Bar chart showing income distribution by type in Scotland and UK, 2012-13](image)

Source: HMRC [2015d](#)

In 2012-2013, the biggest share of income came from employment earnings (72.6% in Scotland and 73.7% in the UK as a whole). Scotland had a lower share of total income coming from self-employment income (7.0% compared to 10.1% in the UK as a whole) and a higher share of total income coming from pension income (14.3% compared to 8.7% in the UK as a whole). This may be due to demographic differences between Scotland and the UK as a whole.

Table 9 shows income tax revenue by income source in the UK in 2015-16. These figures are not available for Scotland.

**Table 9 Income tax revenue after allowances given as income tax reduction, by income source (£ million), UK, 2015-16**

<table>
<thead>
<tr>
<th>Source of Income</th>
<th>Amount (£ million)</th>
<th>%</th>
<th>Source of Income</th>
<th>Amount (£ million)</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Earnings</td>
<td>155,500</td>
<td>90.9%</td>
<td>Savings</td>
<td>2,324</td>
<td>1.4%</td>
</tr>
<tr>
<td>Dividends</td>
<td>13,190</td>
<td>7.7%</td>
<td>Total</td>
<td>171,014</td>
<td></td>
</tr>
</tbody>
</table>

Source: HMRC [2015b](#), SPIce calculations

In 2015-16, earnings made up 90.9% of total income tax revenue (after allowances given as income tax reduction) in the UK, savings made up 1.4% and dividends made up 7.7%.

**INCOME TAX RECEIPTS**

Table 10 shows income tax receipts in Scotland and the UK from 1990-00 to 2014-15. Income tax receipts were £163.11 billion in 2014-15 in the UK as a whole and £11.97 billion in Scotland in 2014-15.

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8 This is NSND income.
Table 10 Income tax receipts, 1999-00 to 2014-15, UK and Scotland

<table>
<thead>
<tr>
<th></th>
<th>UK</th>
<th>Scotland</th>
<th>Scotland as % of UK</th>
</tr>
</thead>
<tbody>
<tr>
<td>1999-00</td>
<td>93,910</td>
<td>6,611</td>
<td>7.04%</td>
</tr>
<tr>
<td>2000-01</td>
<td>105,177</td>
<td>7,299</td>
<td>6.94%</td>
</tr>
<tr>
<td>2001-02</td>
<td>107,994</td>
<td>7,700</td>
<td>7.13%</td>
</tr>
<tr>
<td>2002-03</td>
<td>109,506</td>
<td>7,873</td>
<td>7.19%</td>
</tr>
<tr>
<td>2003-04</td>
<td>117,917</td>
<td>8,631</td>
<td>7.32%</td>
</tr>
<tr>
<td>2004-05</td>
<td>127,294</td>
<td>9,203</td>
<td>7.23%</td>
</tr>
<tr>
<td>2005-06</td>
<td>134,916</td>
<td>9,808</td>
<td>7.27%</td>
</tr>
<tr>
<td>2006-07</td>
<td>147,712</td>
<td>10,931</td>
<td>7.40%</td>
</tr>
<tr>
<td>2007-08</td>
<td>151,738</td>
<td>11,213</td>
<td>7.39%</td>
</tr>
<tr>
<td>2008-09</td>
<td>153,442</td>
<td>11,293</td>
<td>7.36%</td>
</tr>
<tr>
<td>2009-10</td>
<td>144,881</td>
<td>10,605</td>
<td>7.32%</td>
</tr>
<tr>
<td>2010-11</td>
<td>153,491</td>
<td>11,266</td>
<td>7.34%</td>
</tr>
<tr>
<td>2011-12</td>
<td>150,939</td>
<td>11,079</td>
<td>7.34%</td>
</tr>
<tr>
<td>2012-13</td>
<td>152,030</td>
<td>11,159</td>
<td>7.34%</td>
</tr>
<tr>
<td>2013-14</td>
<td>156,898</td>
<td>11,516</td>
<td>7.34%</td>
</tr>
<tr>
<td>2014-15</td>
<td>163,109</td>
<td>11,972</td>
<td>7.34%</td>
</tr>
</tbody>
</table>

Source: HMRC 2015f, SPICe calculations

Figure 8 shows the annual change in income tax receipts in Scotland and the UK between 2000-01 and 2014-15.

**Figure 8 Annual percentage change in income tax receipts, Scotland and UK, 2000-01 to 2013-14**

From 2000-01 to 2014-15 income tax receipts increased on average slightly more in Scotland (4.1%) than in the UK as a whole (3.8%). Receipts have also been more volatile in Scotland than in the UK as a whole over that period. Since 2007-08 income tax receipts in Scotland and the UK as a whole have moved closely in line with one another and the annual change has been identical in Scotland and the UK as a whole since 2011-12.

**SCOTTISH RATE OF INCOME TAX**

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9 As measured by standard deviation: 4.7% in Scotland and 4.5% in the UK as a whole (SPICe calculations).
The Scotland Act 2012 provides for the basic, higher and additional UK income tax rates on the NSND income of Scottish taxpayers to be reduced by 10 pence. The Scottish Parliament will then levy SRIT which will apply equally to all these rates. It will not have the power to vary the bands. As shown in Figure 9, if SRIT is set at 10p, Scottish taxpayers will be charged the same tax rates as those in the rest of the UK.

Figure 9 SRIT at 10p and UK income tax for Scottish taxpayers

<table>
<thead>
<tr>
<th>Basic rate</th>
<th>Higher rate</th>
<th>Additional rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>10%</td>
<td>30%</td>
<td>35%</td>
</tr>
</tbody>
</table>

If SRIT is set at 11p, the basic rate in Scotland will be 21p, the higher rate will be 41p and the additional rate will be 46p. If SRIT is set at 0, the basic rate will be halved to 10p, the higher rate will be decreased to 30p and the additional rate to 35p.

The rest of the income tax structure will remain a reserved matter such as Personal Allowance, thresholds and taxes on savings and dividends. Income tax revenue will continue be collected by HMRC. SRIT will need to be set every year by the Scottish Parliament for only one tax year and for the whole of that year. The Scotland Act 2012 requires that a Scottish Rate Resolution be made before the start of the tax year – i.e., by 5 April at the latest – to provide the statutory basis for the collection of receipts from the start of the tax year. SRIT may not be set more than 12 months before the start of that year (Berthier et al., 2014).

Scottish taxpayers are defined in relation to their place of residence in the course of a tax year. Section 25 of the Scotland Act 2012 sets out the definition of a Scottish taxpayer. The following conditions have to be met in order for an individual to be a Scottish taxpayer:

- They must be UK resident for tax purposes – an individual who is not UK tax resident cannot be a Scottish taxpayer.
- If they have one place of residence and this is in Scotland, they are a Scottish taxpayer.
- If they have more than one place of residence in the UK they will need to determine which of these has been their main place of residence for the longest period in a tax year - if this is in Scotland, they are a Scottish taxpayer.

Scottish taxpayer status applies for a whole tax year. MSPs, MPs representing a constituency in Scotland and Members of the European Parliament (MEPs) representing Scotland will be automatically treated as Scottish taxpayers, irrespective of where their residence is or of where they spend the most days in the UK.
HMRC will identify Scottish taxpayers based around address information held in HMRC’s systems. HMRC has “carried out exercises to compare this against third part data held elsewhere” e.g. the Post Office in order to assess the accuracy of the data it holds (Scottish Parliament 2015). It concluded that about 98% of the taxpayers for whom it holds Scottish addresses are correctly identified as likely to be Scottish taxpayers (Scottish Parliament 2015).

HMRC published draft technical guidance on Scottish taxpayer status in June 2015 (HMRC 2015g) and launched a consultation that closed in July 2015. HMRC aim to publish a wider range of general guidance and advisory products for taxpayers later in 2015 (Scottish Parliament 2015).

REVENUE FROM SRIT

Scottish Government estimates

The Scottish Government has estimated the revenue that would have been raised from SRIT at 10p from 2009-10 to 2013-14 as shown in Table 11.

<table>
<thead>
<tr>
<th>Year</th>
<th>Total Income Tax</th>
<th>NSND Income Tax</th>
<th>SRIT</th>
</tr>
</thead>
<tbody>
<tr>
<td>2009-10</td>
<td>10,300</td>
<td>10,124</td>
<td>4,330</td>
</tr>
<tr>
<td>2010-11</td>
<td>10,611</td>
<td>10,392</td>
<td>4,427</td>
</tr>
<tr>
<td>2011-12</td>
<td>10,780</td>
<td>10,584</td>
<td>4,267</td>
</tr>
<tr>
<td>2012-13</td>
<td>10,856</td>
<td>10,714</td>
<td>4,273</td>
</tr>
<tr>
<td>2013-14</td>
<td>11,410</td>
<td>10,911</td>
<td>4,258</td>
</tr>
</tbody>
</table>

Source: Scottish Government 2015a

In 2013-14 NSND income accounted for 95.6% of total income tax in Scotland and was made up of (see Figure 11):

- SRIT which accounted for 39.0% of NSND income tax and 37.3% of total income tax.
- Remaining (non-SRIT) NSND income which accounted for 58.3% of total income tax.

Figure 10 Income tax revenue, Scotland, 2013-14

Source: SPICe calculations based on Scottish Government 2015a

Figure 11 shows the annual percentage change in total income tax, NSND income tax and SRIT in Scotland between 2010-11 and 2013-14. It shows that annual changes are higher for total income tax than they are for SRIT.
Between 2010-11 total income tax on average increased by 2.6%, NSND income tax increased by 1.9% but SRIT decreased by 0.4%. SRIT was the most volatile of the three taxes. The different trends highlighted in Figure 11 are due to two factors:

- The share of taxpayers by marginal tax rate is different for each of the three taxes.
- These three taxes include different types of income which can change separately from one another.

**Income tax forecasts in Scotland**

Table 12 shows the forecast of NSND income tax revenue in the UK as a whole between 2012-13 and 2020-21 while Table 12 shows the forecast for SRIT revenue in Scotland (at 10p) over the same period.

---

10 Between 2010-11 and 2013-14 the standard deviation was 1.9% for total income tax, 0.6% for NSND income tax and 2.4% for SRIT (SPICe calculations).

11 See Annex.

12 Assuming SRIT is set at 10p, suppose a Scottish higher rate taxpayer pays £40 in income tax on earnings over a given period (£10 in SRIT and £30 in UK income tax). In addition they pay £10 in tax on dividends over that same period, so in total they pay £50 in income tax. Assume the tax they pay on earnings doubles to £80 (£20 in SRIT and £60 in UK income tax) but their dividend tax remains the same so they now pay £90 in income tax. SRIT has increased by 100%, NSND income tax has increased by 100% but total income tax has only increased from £50 to £90 (an 80% increase).
Table 12 Income tax forecast for NSND income tax revenue, £billion, UK, 2012-13 to 2020-21

<table>
<thead>
<tr>
<th></th>
<th></th>
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<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Income tax</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>revenue on</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>NSND income</td>
<td>147.2</td>
<td>153.3</td>
<td>160.5</td>
<td>171.7</td>
<td>182.0</td>
<td>191.8</td>
<td>203.7</td>
<td>217.6</td>
</tr>
<tr>
<td>% change</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>4.1%</td>
<td>4.7%</td>
<td>7.0%</td>
<td>6.0%</td>
<td>5.4%</td>
<td>6.2%</td>
<td>6.8%</td>
<td></td>
</tr>
</tbody>
</table>

Source: OBR 2015

Table 13 SRIT tax revenue forecast (at 10p), £ million, Scotland, 2013-14 to 2020-21

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>SRIT revenue</td>
<td>4,240</td>
<td>4,415</td>
<td>4,590</td>
<td>4,868</td>
<td>5,147</td>
<td>5,431</td>
<td>5,781</td>
<td>6,187</td>
</tr>
<tr>
<td>% change</td>
<td>4.1%</td>
<td>4.0%</td>
<td>6.1%</td>
<td>5.7%</td>
<td>5.5%</td>
<td>6.4%</td>
<td>7.0%</td>
<td></td>
</tr>
</tbody>
</table>

Source: OBR 2015

Although SRIT as a percentage of total NSND income tax in the UK is expected to remain stable from 2013-14 to 2020-21 at 2.88-2.92%, there are differences in the annual variations of SRIT and UK NSND income tax. Figure 14 shows the annual change in estimated SRIT revenues (at 10p) compared to the annual change in UK tax revenue on NSND income from 2014-15 to 2020-21.

Figure 12 Annual change (%) in income tax on NSND income in the UK as a whole and SRIT, 2013-14 to 2020-21

Source: SPICE calculations based on OBR 2015
How could this affect the block grant? Illustrative example

After SRIT gets introduced, the revenue from SRIT will accrue to the Scottish Government. The Scottish block grant will be decreased to reflect this loss of revenue by HM Treasury. During a two or three year transition period (Scottish Parliament 2015) following the introduction of SRIT, the annual deduction to the block grant will exactly offset the tax revenue generated for that year (Scottish Parliament 2015). In other words, the net effect of levying SRIT at 10p in the pound and the block grant adjustment will be zero (Scottish Government 2015b). Subsequently the block grant adjustment is set to be indexed according to the “Holtham method” (Scottish Government 2015b) – this method indexes the annual change in the block grant adjustment to the annual change in the NSND income tax base in the UK (or the rest of the UK).

- Let us use income tax on NSND income tax revenue in the UK as a proxy for NSND taxable income in the UK.

- Let us take the forecast for SRIT revenue for 2016-17 as the base year when the indexation mechanism starts being applied and see what the difference in the Scottish budget is by 2020-21 if we uprate the block grant deduction annually by the percentage change in NSND income tax revenue in the UK as a whole.

Table 14 SRIT revenue and block grant deduction, 2016-17 and 2020-21

<table>
<thead>
<tr>
<th></th>
<th>2016-17</th>
<th>2017-18</th>
<th>2018-19</th>
<th>2019-20</th>
<th>2020-21</th>
<th>Cumulative total</th>
</tr>
</thead>
<tbody>
<tr>
<td>SRIT revenue</td>
<td>4,868</td>
<td>5,147</td>
<td>5,431</td>
<td>5,781</td>
<td>6,187</td>
<td>27,414</td>
</tr>
<tr>
<td>Block grant deduction</td>
<td>4,868</td>
<td>5,160</td>
<td>5,438</td>
<td>5,775</td>
<td>6,169</td>
<td>27,410</td>
</tr>
<tr>
<td>Difference</td>
<td>0</td>
<td>-13</td>
<td>-7</td>
<td>6</td>
<td>18</td>
<td>4</td>
</tr>
</tbody>
</table>

- Table 14 shows that if the deduction to the block grant was indexed to UK NSND income tax revenue, there would be a loss to the Scottish budget of £13m and £7m respectively in 2017-18 and 2018-19. However, the Scottish budget would be bigger than it otherwise would have been by £6m and £18m respectively in 2019-20 and 2020-21. The cumulative difference between SRIT revenue and the deduction to the block grant after 5 years would be £4m i.e. the sum of SRIT revenue over 5 years would be £4m higher than the sum of the annual deductions to the block grant over those 5 years.

IMPLEMENTING SRIT

Cost of implementation

The Scottish Government is currently meeting all start-up and running costs of SRIT (Scottish Government 2015c). The total cost of implementing SRIT is estimated to be between £30m and £35m (down from previous estimates of £35m to £4m) (UK Government 2015i). This is made up of £10m to £15m on IT costs and £20m on non-IT costs (UK Government 2015i). This remains the current estimate (Scottish Parliament 2015).

HMRC has invoiced the Scottish Government:

- £1,018,713 for costs in 2013-14 associated with the project and implementation programme (UK Government 2014)
- £1,178,707 for costs in 2014-15 associated with the project and implementation programme (UK Government 2015i)
Total costs for 2014-15 are estimated to be £2.1m (UK Government 2015i). In November 2010, annual running costs for SRIT were originally estimated at £4.2m. However, HMRC notes (Scottish Parliament 2015):

“HMRC has always anticipated that, if the Scottish and UK rates diverge, there will be an increase in running costs. The customer insight research supported this, by clarifying that Scottish taxpayer customers would be more likely to call HMRC if the Scottish rates were higher than the UK rates and as set out above a divergence in the rates would increase the amount of compliance activity required. If the SRIT is set at 10%, the running costs are estimated to be £2m-£2.5m. If the rate is set at a figure other than 10%, the figure is estimated to be £5.5m-£6m. These figures do not include costs arising from the long-term solution for [Relief at Source] pension schemes, which will be implemented in 2018-19, as the details of this solution are still under development.”

HMRC implementation

HMRC is confident that it will be ready for the implementation of SRIT in April 2016 – it states that good progress has been made in relation to amending IT systems and work is underway concerning changes to the PAYE system (Scottish Parliament 2015). HMRC does not anticipate a significant change for employers as a result of the introduction of SRIT. However, it has been carrying out a programme of communications activity for employers. In addition, guidance for customers is expected to be published in autumn 2015 (Scottish Parliament 2015).

Public knowledge of SRIT

HMRC (2015h) carried out a survey of Scottish taxpayers from a range of different locations in Scotland and on the border with England, with different incomes and professions. Key findings include:

- Among individuals, awareness of the forthcoming change to SRIT was low (only 1 in 85 participants knew about it).
- It was common for participants to express surprise that they hadn’t been aware that a major change to income tax was happening.
- Awareness among employers and payroll agents was mixed with large organisations tending to be more aware than SMEs and payroll agents tending to be very aware. Equally pension providers had a high level of understanding of SRIT.
- Taxpayers are more likely to want more information or clarification about how SRIT will impact them if the tax rates are set higher than the rest of UK (rUK) rate (58% compared to 40% who said they would want more information if SRIT was lower).
- Most individuals thought that they would not have to do anything about the Scottish Rate of Income Tax and did not anticipate having to contact HMRC about the Scottish Rate of Income Tax.
- Taxpayers would like to receive a letter notifying telling them about SRIT either before September 2015 (20%) or in January 2016 (24%).

HMRC plans to write to taxpayers for whom they hold a Scottish address in December 2015 to inform them that they will be treated as a Scottish taxpayer and advise them of how to report a change of address (Scottish Parliament 2015).
CHANGING SRIT

Regressive or progressive?

A progressive income tax implies that high income individuals have a higher rate of tax than lower-income individuals, in other words the average rate of tax rises as income rises. As shown in Figure 1, income tax in the UK is progressive, that is to say higher income individuals have a higher rate of tax than lower-income individuals.

SRIT applies uniformly across all the tax bands i.e. all taxpayers pay the same percentage of their income in SRIT. In this sense it can be considered that SRIT in isolation is not progressive as it does not rise as incomes rise. For example if SRIT is set at 10p, an individual with a taxable income of £20,000 pays 10% of their income or £2,000 in SRIT. An individual with a taxable income of £200,000 also pays 10% in SRIT or £20,000 in SRIT. However as SRIT is not paid separately from the rest of income tax this has no practical consequences for taxpayers or for post-tax income distribution as it does not change the progressive nature of total income tax revenue.

Changes to SRIT will apply uniformly across all the main tax bands. If the Scottish Parliament changes SRIT up or down, income tax will still be progressive: high income individuals will still have a higher rate of tax than lower-income individuals. For example if SRIT is set at 5p, the basic rate will be 15p, the higher rate will be 35p and the additional rate will be 40p as shown in Figure 15.

Figure 13 Setting SRIT at 5p

![Figure 13 Setting SRIT at 5p](image)

Because SRIT can only vary uniformly across all the bands, changing SRIT will have a bigger impact on basic rate taxpayers than higher and additional rate taxpayers. For example setting SRIT at 5p would mean the basic rate goes down to 15p (a 25% decrease), the higher rate goes down to 35p (a 12.5% decrease) and the additional rate goes down to 40p (a 11.1% decrease). These are the effects on marginal tax rates.

The effect on the average rate of tax of individual taxpayers would be different. If SRIT is set at 5p, income tax for basic rate taxpayers would be reduced by 25% because that is the basic rate is the only rate at which they pay tax. For a higher rate taxpayer, the tax they pay at the basic rate would be reduced by 25% but the tax they pay at the higher rate would only be reduced by
12.5% - the effect on total tax they pay would depend on what percentage of their taxable income they pay at different rates but would be less than 25% in any case.

The bigger the difference between each marginal rate, the more progressive income tax is. Currently the higher rate is 100% higher than the basic rate and the additional rate is 125% higher than the basic rate. Changing SRIT will change the progressivity of SRIT as shown in Table 15.

**Table 15: Effect of different rates of SRIT on the progressivity of income tax**

<table>
<thead>
<tr>
<th>SRIT rate</th>
<th>Basic rate</th>
<th>Higher rate</th>
<th>Additional rate</th>
<th>How much higher is higher rate compared to basic?</th>
<th>How much higher is additional rate compared to basic?</th>
</tr>
</thead>
<tbody>
<tr>
<td>5p</td>
<td>15</td>
<td>35</td>
<td>40</td>
<td>133.3%</td>
<td>166.7%</td>
</tr>
<tr>
<td>10p</td>
<td>20</td>
<td>40</td>
<td>45</td>
<td>100.0%</td>
<td>125.0%</td>
</tr>
<tr>
<td>15p</td>
<td>25</td>
<td>45</td>
<td>50</td>
<td>80.0%</td>
<td>100.0%</td>
</tr>
</tbody>
</table>

Any level of SRIT in excess of 10p will in effect make income tax “less progressive”. For example, setting SRIT at 15p will mean the higher rate of income tax is only 80.0% higher than the basic rate (45p versus 25p) and the additional rate is only 100.0% higher than the basic rate (50p versus 25p). Conversely, setting SRIT below 10p will make income tax “more progressive” e.g. setting SRIT at 5p will mean the higher rate is 133.3% higher than the basic rate (35p versus 15p) and the additional rate is 166.7% higher than the basic rate (40p versus 15p). It is important to note however that no change to SRIT can make income tax regressive as this would require that the marginal income tax rates decrease as income goes up.

**Taxpayer response to a tax change**

Changing tax rates has a number of revenue effects:

- The mechanical or pre-behavioural effect which is the direct impact on tax revenues and is proportional to the change in tax rate.
- Behavioural effects which refer to the range of different responses that taxpayers can engage in following a change in tax
- Indirect effects such as the impact on investment

A reduction in tax is generally expected to encourage economic activity and willingness to comply with the tax system while an increase in tax may lead to less investment in the country and an increased impetus to engage in activities that decrease taxable income (Berthier 2014).

Figure 14 shows the different behavioural responses that taxpayers may have in response to a tax change.
Figure 14 Behavioural responses to income tax rate changes

<table>
<thead>
<tr>
<th>Possible behavioural responses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Effort, risk, and hours of work</td>
</tr>
<tr>
<td>Participation in labour force</td>
</tr>
<tr>
<td>Migration</td>
</tr>
<tr>
<td>Tax planning</td>
</tr>
<tr>
<td>Tax avoidance</td>
</tr>
<tr>
<td>Tax evasion</td>
</tr>
</tbody>
</table>

Source: HMRC 2012

There are two main types of labour supply responses. Firstly, a reduction in the number of hours people work or the amount of effort they put into work can have two effects that partially offset each other:

- **Income effect**: this arises because a change in tax rates leads to a proportional change in disposable income for a given amount of work. For example, if tax rates are reduced, the individual has more disposable income and may respond by working less.

- **Substitution effect**: this arises because, for example, a tax reduction means that for every additional hour of work the individual gets a higher disposable income, so more to spend per hour of work on food, clothing, holidays, etc. Sacrificing leisure for work has become more worthwhile so people may respond by working more.

Secondly, taxpayers can change whether or not they participate in the workforce through retirement (either advanced or delayed); deciding to seek a job if they are not employed; staying in a job or leaving the workforce if they are employed; staying in, leaving or returning to education or training; taking leave from work or extending leave (e.g. maternity leave).

In addition to the labour supply effect, the “wage effect” must also be considered. For example, if income tax in Scotland becomes lower than in the rest of the UK (rUK), people in rUK may demand higher wages to compensate for the fact that they end up with lower disposable incomes. This may be particularly true for workers in rUK in the same company who could compare their income with their counterparts in Scotland. These wage effects could cause companies to shift employment between jurisdictions, which would affect the regional distribution of GDP.

Other responses include:

- **Tax planning:**
Forestalling i.e. bringing income forward in anticipation of a higher tax rate. This can have a significant one-off impact on tax revenue and is particularly relevant for owner-directors of companies.

- Incorporating and receiving a dividend rather than a salary
- Converting income to capital gains e.g. taxpayers with investment income can shift their asset portfolios towards assets that give returns in the form of capital gains rather than income
- Taking compensation for labour services in forms that are untaxed or subject to lower tax rates (e.g. company cars, child care, stock options)
- Transferring income between spouses
- Increasing pension contributions
- Increasing donations to charities

- Tax avoidance
- Tax evasion

The extent to which taxpayers change their behaviour in response to a change in tax rates is captured by the concept of “taxable income elasticity”.

### Taxable income elasticity (TIE)

TIE estimates the percentage change in total taxable incomes in response to a one per cent change in the net-of-tax rate (the proportion of each additional pound earned received by the individual after tax, also known as the marginal retention rate (HMRC 2012). TIE does not have a unit.

For example, if the marginal income tax rate is 50%, the net-of-tax-rate is 50% as people get to keep 50p of each pound received after tax. If the tax rate increases from 50% to 50.5%, the net-of-tax rate goes from 50% to 49.5%. This is a 0.5 percentage point decrease, (equal to 1% of 50%). In other words the net-of-tax rate fell by 1%. If TIE was 0.4, this reduction in the income tax rate is expected to lead to a 0.4% fall in taxable income.

Although many empirical studies have looked at the effect of fiscal changes in various countries and smaller jurisdictions (e.g. regions, cities), “there are no convincing estimates of the long-run elasticity or reported taxable income to changes in the marginal tax rate” (Saez et al. 2009). This is because it is hard to isolate the behavioural reasons behind changes in taxable income from other factors such as the overall economic situation and the TIEs that are based on empirical studies are dependent on many factors specific to the case study.

Most studies focus on high income taxpayers and have concluded that high income taxpayers have the highest behavioural responses in response to tax changes with TIEs ranging from 0.12 to 0.4. Low income taxpayers have absent or low behavioural responses to tax changes e.g. TIE estimate for low income earners range from 0.18 to 0.28 and from 0.1 to 0.26 for middle income earners (Berthier 2014).

In 2010 the Independent Commission on Funding & Finance for Wales Fairness and accountability: a new funding settlement for Wales estimated TIEs for taxpayers in Wales in the event of income tax devolution in Wales. It estimated a TIE of 0.25 for basic rate taxpayers and 0.5 for higher rate taxpayers, noting a certain number of factors that would contribute to high TIEs including the high number of people living within 50 miles of the border between the two countries and the high number of daily commuters between the two countries.

In 2012 HMRC estimated the effect of the introduction of the 50p additional rate in 2010-11 (previously the higher rate for incomes over £37,400 was 40p) (HMRC 2015). TIEs ranged from 0.14 to 0.81 with the most likely estimate at 0.48. The UK Government selected a TIE of 0.45 for additional rate taxpayers. These values attempted to exclude forestalling as a response...
because it has a one-off effect on declared income. HMRC concluded that the additional rate of income tax was a highly distorting form of taxation and had led to a substantial amount of forestalling: around £16 billion to £18 billion of income is estimated to have been brought forward to 2009-10 to avoid the introduction of the additional rate of tax. Between 2009-10 and 2010-11 the taxable income of taxpayers earning over £200,000 decreased by 27.9% in the UK as a whole and by 38.9% in Scotland (Berthier 2014). This may indicate a higher behavioural response from additional rate taxpayers in Scotland compared to the UK as a whole.

HMRC estimated that reducing the additional rate from 50p to 45p could reduce revenues by about £3.5 billion in 2015-16 (HMRC 2012). However, once behavioural effects were included, the loss was only £100 million by 2015-16. These results used a TIE of 0.45 for additional rate taxpayers. The IFS (2014) note that using TIEs of 0.35 and 0.55 which are within the range of uncertainty leads to an estimate that reducing the 50p rate to 45p in 2013-14 could lead to a loss of revenue of £700 million or an increase in revenue of £600 million.

Based on a range of empirical studies, Berthier (2014) concluded that changing SRIT may have the following effects:

- Changes to labour supply are likely to be small and at the margin.
- Physical migration is likely to be higher for the highest income taxpayers. Additional rate taxpayers, such as those who work in either rUK or Scotland and live in the other and those who have second homes in Scotland or rUK, may find ways to migrate across the fiscal border between Scotland and rUK “on paper”. The extent to which paper migration is likely to occur will depend on HMRC”s efficiency in identifying and monitoring “Scottish” and other taxpayers.
- Tax planning in the form of forestalling is a likely response in relation to a change in the SRIT. However, tax can only be brought forward or delayed once in relation to a change in the SRIT and so this is a one-off effect. Given that SRIT applies only to NSND income, tax planning in the form of shifting income from one taxable form to another is also likely to occur. In addition, a change in SRIT may also result in greater or lesser levels of incorporation. All of these responses would have an impact on overall tax revenues.

Overall, studies show that those with high incomes are more responsive than those with lower incomes; the self-employed are more responsive than wage earners; and women are more responsive than men (Berthier 2014).

**Estimates**

In its report Direct effects of illustrative tax changes (HMRC 2015i), HMRC estimated the effect of changing to the basic rate of income tax for total taxable income in Scotland by 1p as shown in Table 16. This includes HMRC’s estimates of potential behavioural responses (although changes to the basic rate are assumed to provoke minimal behavioural responses if any).

### Table 16 Direct effects on NSND income tax of changing the basic rate of income tax in Scotland by 1p (£ million)

<table>
<thead>
<tr>
<th></th>
<th>2016-17</th>
<th>2017-18</th>
<th>2018-19</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>345</td>
<td>390</td>
<td>400</td>
</tr>
</tbody>
</table>

Source: HMRC 2015i

SPICe has modelled the effect of illustrative changes to SRIT for 2014-15.
The results are summarised in Table 17. SPICe used TIEs of 0.05 for basic rate taxpayers, 0.15 for higher rate taxpayers and 0.35 for additional rate taxpayers. These are consistent with the academic literature which provides a broad range of TIEs. Examples include:

- 0.18 to 0.28 for low income earners (Gruber & Saez 2002)
- 0.1 to 0.26 for middle income earners (Gruber & Saez 2002)
- 0.12 to 0.4 for the highest income earners (Saez et al. 2009) with 0.4 considered to be a reliable estimate for high income earners (Giertz 2005)
- 0.06 for all income taxpayers (Kleven & Schultz, 2011)
- 0.17 at the median family income (Devereux 2004)

The SPICe model uses lower TIEs than those discussed in the academic literature because the latter focuses on TIEs for total income. TIEs on NSND income are expected to be lower than TIEs for total income. This is because dividends and savings interest are easier to shift (e.g. forestalling) than earnings.

These TIEs do not reflect specific assumptions about how Scottish taxpayers may react to a change in SRIT, they are simply consistent with the academic literature and the type of income under consideration.

Table 17 Impact of a change in SRIT on SRIT revenues (includes behavioural responses)

<table>
<thead>
<tr>
<th>SRIT</th>
<th>Direct (mechanical) impact on SRIT revenues</th>
<th>SRIT revenues before taking into account behavioural response of taxpayers</th>
<th>Indirect (behavioural) impact on SRIT revenues</th>
<th>Post-behavioural SRIT revenues</th>
<th>% increase</th>
</tr>
</thead>
<tbody>
<tr>
<td>5p</td>
<td>-2,191.5</td>
<td>2,191.5</td>
<td>22.8</td>
<td>2,214.3</td>
<td>-49.5%</td>
</tr>
<tr>
<td>6p</td>
<td>-1,753.2</td>
<td>2,629.8</td>
<td>21.8</td>
<td>2,651.6</td>
<td>-39.5%</td>
</tr>
<tr>
<td>7p</td>
<td>-1,314.9</td>
<td>3,068.1</td>
<td>19.1</td>
<td>3,087.2</td>
<td>-29.6%</td>
</tr>
<tr>
<td>8p</td>
<td>-876.6</td>
<td>3,506.4</td>
<td>14.6</td>
<td>3,521.0</td>
<td>-19.7%</td>
</tr>
<tr>
<td>9p</td>
<td>-438.3</td>
<td>3,944.7</td>
<td>8.2</td>
<td>3,952.9</td>
<td>-9.8%</td>
</tr>
<tr>
<td>10p</td>
<td></td>
<td>4,383.0</td>
<td>-10.0</td>
<td>4,811.3</td>
<td>9.8%</td>
</tr>
<tr>
<td>11p</td>
<td>438.3</td>
<td>4,821.3</td>
<td>-21.8</td>
<td>5,237.8</td>
<td>19.5%</td>
</tr>
<tr>
<td>12p</td>
<td>876.6</td>
<td>5,259.6</td>
<td>-35.5</td>
<td>5,662.4</td>
<td>29.2%</td>
</tr>
<tr>
<td>13p</td>
<td>1,314.9</td>
<td>5,697.9</td>
<td>-51.0</td>
<td>6,085.2</td>
<td>38.8%</td>
</tr>
<tr>
<td>14p</td>
<td>1,753.2</td>
<td>6,136.2</td>
<td>-68.3</td>
<td>6,506.2</td>
<td>48.4%</td>
</tr>
<tr>
<td>15p</td>
<td>2,191.5</td>
<td>6,574.5</td>
<td>-86.3</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: SPICe calculations

Table 17 shows that behavioural responses would lead to slightly lower SRIT revenues than expected based on the purely mechanical effect of a change in rates e.g. setting SRIT at 15p would mechanically raise SRIT revenues by 50%, however once behavioural responses have
been taken into account revenues would only increase by 48.4%. Please note that these results are intended as illustrative examples only.

Behavioural responses that may occur as a result of changing SRIT will have an impact on all NSND income tax revenue, not just SRIT revenue. For example setting SRIT at 5p will, based on the TIEs described above, lead to an increase in SRIT revenues of £22.8m due to behavioural responses (this must be added to the mechanical effect of the change in rate to get total revenues). However, the effect of these behavioural changes on total NSND income tax revenue would be much greater (£230m). The Scottish budget in absolute terms would benefit less from a positive behavioural response but would also suffer less from a negative behavioural response following a change in SRIT than HM Treasury.

ADDITIONAL INFORMATION

- **UK Income Tax Liabilities Statistics, 2012-13 Survey of Personal Incomes, with projections to 2015-16, Tables 2.1 to 2.7** (HMRC 2015b):
  - Released 22 May 2015, next release due January/February 2016, frequency of release: twice yearly, January/February and April/May.
  - The only table that has data on Scotland is Table 2.2: Number of individual income taxpayers by marginal rate, gender and age, by country and region, 1999-00 to 2015-16

- **Personal Incomes Statistics 2012-13, Tables 3.1-3.11** (HMRC 2015d):
  - Released 30 January 2015, next release due January/February 2016, frequency of release: annually.
  - The only table that has data on Scotland is Table 3.11: Income and tax, by gender, region and country, 2012-13

- **Personal Income Statistics 2012-13, Tables 3.12-3.15a** (HMRC 2015j):
  - Released 27 February 2015, next release due February 2016, frequency of release: annually
  - The following tables have data on Scotland:
    - Table 3.12: Income and tax for individuals of pension age, by gender, region and country, 2012-13
    - Table 3.13: Income and tax by country and region, 2012-13
    - Table 3.13a: Income and tax by county and region, 2012-13 - Confidence Intervals
    - Table 3.14: Income and tax by borough and district or unitary authority, 2012-13
    - Table 3.14a: Income and tax by borough and district or unitary authority, 2012-13 - Confidence Intervals
    - Table 3.15: Income and tax by Parliamentary Constituency, 2012-13
    - Table 3.15a: Income and tax by Parliamentary Constituency, 2012-13 - Confidence Intervals

- **Direct effects of illustrative tax changes** (HMRC 2015i):
  - Released 8 July 2015, next release due after the Chancellors Autumn Statement Speech, frequency of release: at each Fiscal event
  - Includes the effect of a change in the basic rate in Scotland by 1p for 2016-17 to 2018-19
ANNEX

The tables in this annex illustrate that the proportional representation of different types of taxpayers and revenue raised at each tax band are different for earnings and for total income in the UK. Table 18 provides income tax revenue on earnings in the UK in 2015-16. This data is not available for Scotland.

Table 18 Income tax revenue on earnings, £ million, UK, 2015-16

<table>
<thead>
<tr>
<th></th>
<th>Basic rate taxpayers</th>
<th>Higher rate taxpayers</th>
<th>Additional rate taxpayers</th>
<th>All taxpayers</th>
<th>% of total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Basic rate</td>
<td>53,200</td>
<td>26,300</td>
<td>1,990</td>
<td>81,500</td>
<td>52.4%</td>
</tr>
<tr>
<td>Higher rate</td>
<td>.</td>
<td>33,600</td>
<td>13,800</td>
<td>47,400</td>
<td>30.5%</td>
</tr>
<tr>
<td>Additional rate</td>
<td>.</td>
<td>.</td>
<td>26,600</td>
<td>26,600</td>
<td>17.1%</td>
</tr>
<tr>
<td>All rates</td>
<td>53,200</td>
<td>59,900</td>
<td>42,390</td>
<td>155,500</td>
<td>100.0%</td>
</tr>
<tr>
<td>% of total</td>
<td>34.2%</td>
<td>38.5%</td>
<td>27.3%</td>
<td>100.0%</td>
<td></td>
</tr>
</tbody>
</table>

Source: HMRC 2015b

Basic rate taxpayers paid 34.2% of income tax revenue on earnings in the UK in 2015-16, higher rate taxpayers paid 38.5% and additional rate taxpayers 27.3%. Tax charged at the basic rate accounted for 52.4% of income tax revenue on earnings, while tax charged at the higher rate accounted for 30.5% and tax charged at the additional rate accounted for 17.1%. Table 19 provides income tax revenue on total income in the UK in 2015-16.

Table 19 Income tax revenue on total income, £ million, savings and dividends, 2015-16

<table>
<thead>
<tr>
<th></th>
<th>Basic rate taxpayers</th>
<th>Higher rate taxpayers</th>
<th>Additional rate taxpayers</th>
<th>All taxpayers</th>
<th>% of total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Basic rate</td>
<td>54,188</td>
<td>27,944</td>
<td>2,035</td>
<td>84,965</td>
<td>49.7%</td>
</tr>
<tr>
<td>Higher rate</td>
<td>38,903</td>
<td>15,157</td>
<td>54,060</td>
<td></td>
<td>31.6%</td>
</tr>
<tr>
<td>Additional rate</td>
<td></td>
<td>31,989</td>
<td>31,989</td>
<td></td>
<td>18.7%</td>
</tr>
<tr>
<td>All rates</td>
<td>54,188</td>
<td>66,847</td>
<td>49,181</td>
<td>171,014</td>
<td>100.0%</td>
</tr>
<tr>
<td>% of total</td>
<td>31.7%</td>
<td>39.1%</td>
<td>28.8%</td>
<td>100.0%</td>
<td></td>
</tr>
</tbody>
</table>

Source: HMRC 2015b

Basic rate taxpayers pay a smaller percentage of total income tax (31.7%) than they do income tax on earnings (34.2%) as they have a smaller portion of their income in savings and dividends compared to higher and additional rate taxpayers. Higher rate taxpayers and additional rate taxpayers pay a higher percentage of total income tax (39.1% and 28.8% respectively) than they do income tax on earnings (38.5% and 27.3% respectively).

While the percentages in Table 18 and 19 are likely to be different for Scotland, the trends will be similar i.e. basic rate taxpayers pay a greater share of tax on earnings than they do on total income while higher and additional rate taxpayers pay a greater share of tax on total income than they do on earnings.
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