Scottish Fiscal Commission

Value Added Tax (VAT) Approach to Forecasting

September 2018

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Summary

1 The Fiscal Framework agreement between the Scottish and the UK Governments states that receipts from the first 10p of standard rate of VAT and the first 2.5p of reduced rate of Value Added Tax (VAT) in Scotland will be assigned to the Scottish Government.[1]

2 VAT assignment will be implemented in 2019-20 as part of a transitional period where VAT raised in Scotland will be calculated but there will not be an impact on the Scottish Government's budget.

3 VAT will be the second largest source of tax revenue for the Scottish Government, after income tax.

4 VAT will continue to be collected by HM Revenue and Customs (HMRC) at the UK level and it will not be possible to calculate VAT raised in Scotland from tax returns. As there is no outturn VAT receipts data for Scotland, the amount of VAT assigned to Scotland must be estimated using a statistical model under development by HMRC, the Scottish Government and HM Treasury.

5 Regulations have been introduced in the Scottish Parliament to expand the remit of the Commission to include VAT forecasting.[2] This paper sets out our broad approach to forecasting VAT revenue assigned to Scotland.

6 Our first full VAT forecast will be included in our Economic and Fiscal Forecasts publication, which will accompany the 2019-20 Scottish budget.

7 Alongside this report we are publishing our first annual Statement of Data Needs.[3] There has so far been no detail published on the model that will estimate the VAT assigned to Scotland and be the baseline for our forecast. It is expected that an overview will be published in the next month with fuller details to follow in 2019. We believe that, for the transparency and good governance of VAT assignment to Scotland, it is essential that full details of the assignment model are published. We discuss this issue in full in our Statement of Data Needs.

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[1] Scottish Government and UK Government (2016) The agreement between the Scottish Government and the United Kingdom Government on the Scottish Government's fiscal framework (link)

[2] Draft amendments to the Scottish Fiscal Commission Act 2016 (2018) (link)

[3] Scottish Fiscal Commission (2018) Statement of Data Needs September 2018 (link)

Background

8 VAT is an indirect tax levied on the purchase of many goods and services. It is reflected in the price paid when items are bought and is collected from traders. Unlike a simple sales tax, it is levied on the amount of value added at each stage of the production chain.

9 Each person in the chain between the first supplier and the final consumer is charged VAT on the eligible goods and services they purchase (input tax). They then charge VAT on the eligible goods and services provided by them (output tax). In general, if a business's output tax exceeds its input tax it will pay the balance to HMRC and if input tax exceeds output tax the business will receive a refund.[4] In effect the tax is levied as a tax on final consumption.

10 VAT can either be charged at 20 per cent (standard rate), five per cent (reduced rate) or zero per cent (zero rated).[5] Some goods and services are also exempt from VAT, and exemption has different effects from zero-rating.

11 VAT being assigned rather than devolved means the Scottish Government will not have any policy control over VAT. The Scottish Government will not have the ability to change the rates of VAT in Scotland or change which goods or services fall under the different rates.

12 VAT is collected by HMRC at a UK level. VAT returns include no information on where the sales of goods and services took place. It is therefore not possible to apportion VAT by country, and not possible to calculate VAT raised in Scotland from tax returns. That will still be the case when VAT is assigned to Scotland. Under current plans, there will not be any outturn receipts for VAT raised in Scotland, either now or in the future.

13 As there is no outturn VAT receipts data for Scotland, the amount of VAT assigned to Scotland must be estimated using a statistical model. The methodology for VAT assignment is currently under development by HMRC, HM Treasury and Scottish Government officials prior to ministerial sign-off by the Joint Exchequer Committee.[6] We expect the approach to use a range of sources to estimate the proportion of UK expenditure across the different

[4] Small UK based businesses (currently those with a turnover under £85,000) are not required to register for VAT. Unregistered traders do not charge VAT on their outputs or reclaim VAT on their inputs. Businesses will also not be able to reclaim input tax if they only supply services which are exempt from VAT (for example insurance, postal services or finance). Businesses which supply a mixture of exempt and VAT eligible services (partially exempt) will be able to reclaim a input tax equivalent to the proportion of their business which is eligible for output tax.

[5] For more detail on goods that fall under the different rates see HMRC's guidance (link)

[6] The Joint Exchequer Committee is made up of UK Government and Scottish Government Ministers.

sectors that occurs in Scotland. We refer to the model here as the assignment outturn model.

14 Neither the SFC nor the Office for Budget Responsibility (OBR) have control over the judgements or approaches taken within the assignment outturn model. The development of our forecasting approaches and the extent to which we can share this is limited by details of the assignment outturn model not being publicly available. We discuss this in further detail in our Statement of Data Needs.[7]

15 The SFC has responsibility for developing, updating and publishing forecasts for the VAT that will be assigned to Scotland from the last available assignment outturn model up to the present year, and for 5 years into the future. Our forecast model is referred to here as the assignment forecast model.

16 The assignment outturn model will provide the baseline sectoral estimates of VAT revenue from which we will make our forecast. The assignment outturn model will also be used to evaluate the accuracy of our assignment forecast.

[7] Scottish Fiscal Commission (2018) Statement of Data Needs September 2018 (link)

VAT and the Scottish Budget

17 The National Statistics publication ‘Government Expenditure and Revenue Scotland (GERS)’ provides an estimate of VAT revenue assigned to Scotland. Assigned VAT will be the second largest source of tax revenue for the Scottish Government, after income tax. GERS estimates it would have been £5,073 million in 2017-18.[8,9]

18 In 2019-20 assignment of VAT to Scotland will be forecast and calculated, but will not impact on the Scottish Government’s budget.

19 From 2020-21 the financial impacts of VAT assignment will be determined by a combination of our VAT assignment forecast and the block grant adjustment.

20 There will be a process for reconciling the Scottish Government’s budget to the outturn data from the assignment outturn model. The timescale and details of this reconciliation are yet to be determined.

Table 1: Estimated VAT revenue that would have been assigned to Scotland

(£ million)	2013-14	2014-15	2015-16	2016-17	2017-18
Estimated VAT assigned to Scotland	4,534	4,673	4,865	4,939	5,073

Source: Scottish Government (2018). Government Expenditure and Revenue Scotland (GERS) 2017-18 (link)

[8] This figure represents 50 per cent of the estimated total VAT receipts assigned to Scotland and is therefore an estimate of the VAT revenue which would have been assigned to Scottish Governments budget. Note the GERS methodology is not the same approach as the assignment outturn model and figures in GERS are based on a three year rolling average. (link)

[9] Scottish Government (2018) Government Expenditure and Revenue Scotland (GERS) 2017-18, Table 1 (link)

Proposed approach to forecasting

21 The OBR has responsibility for producing the VAT forecast for the UK. To do this, they commission a forecast from analysts in HMRC for each of the OBR's fiscal events.[10] The UK forecast of VAT is based on the concept of a 'VAT total theoretical liability' (VTTL). The VTTL is an estimate of the total value of VAT that could theoretically be collected from the tax base.

22 The VTTL does not include any adjustments for error, fraud, evasion, avoidance and debt to HMRC and therefore will always be higher than outturn VAT receipts. The percentage difference between the VTTL and the actual receipts is the estimated VAT tax gap.[11]

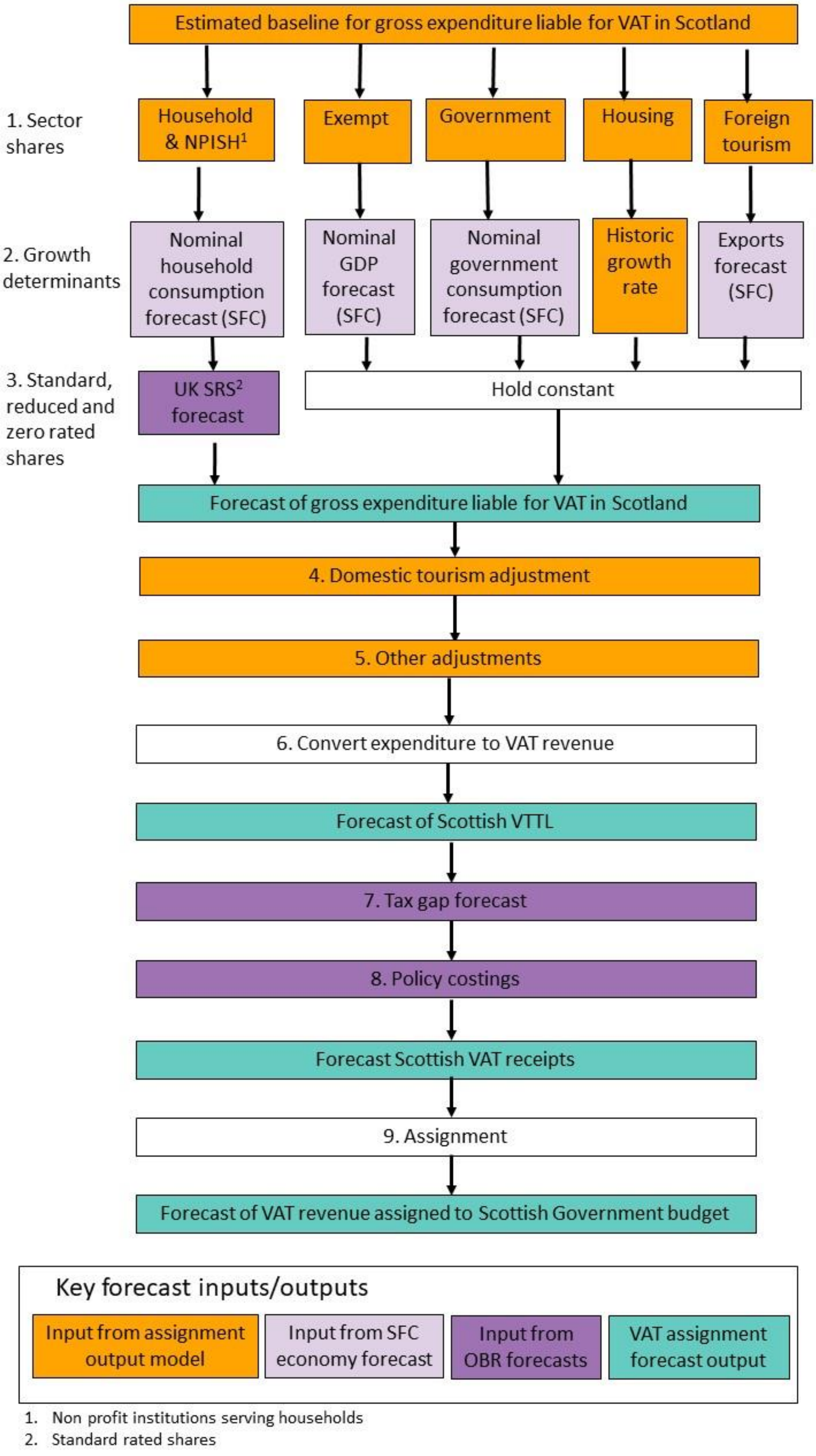
23 Our approach to forecasting the VAT assignment outturn estimates is broadly based on the approach used at the UK level to forecast VAT receipts, but with some necessary adjustments due to the availability of data and the use of Scottish determinants wherever possible.

24 Figure 1 provides a schematic representation of our proposed approach to forecasting assigned VAT revenue.

[10] The OBR's website has a page dedicated to information on their UK VAT forecast (link)

[11] HM Revenue & Customs (2018) Measuring tax gaps: Tax gap estimates for 2016-17 (link)

Figure 1 : Schematic representation of our current approach to forecasting



The steps in the forecast

Step 1: Sector shares

25 The assignment outturn model will provide an estimate of the proportion of VAT-liable expenditure in Scotland that comes from different sectors.

26 Our expectation is that the assignment outturn model will calculate the proportion of expenditure which is liable for the standard rate of VAT, reduced rate VAT or is zero rated. This will then be aggregated to give an estimate of the gross expenditure in each area for the purposes of VAT, at the standard rated equivalent. For example if there was £100 of spending on household goods and £30 of this was zero rated (e.g. food), £20 was reduced rate (e.g. fuel) and £50 was standard rated then the standard rated equivalent would be approximately £56.[12]

27 For the purposes of our assignment forecast model we will use the estimates available in the assignment outturn model to split the baseline expenditure into five sector groupings. Expenditure in these sectors will be grown in line with appropriate determinants, as detailed in step 2.

Households

28 Expenditure from households accounts for the majority of gross expenditure liable for VAT. GERS estimates that household expenditure accounted for 68 per cent of assigned VAT revenue in 2014.[13] Non-profit institutions serving households are also included in the household sector but their contribution is minimal.

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[12] The VAT paid on a price which is inclusive of VAT is calculated using the following equation;

VAT = VAT inclusive expenditure * (VAT rate / (VAT rate +1))

Therefore spending at the reduced rate can be converted to the standard rated expenditure equivalent using;

reduced rated expenditure * (((0.05 / (0.05 +1)) / ((0.2 / (0.2 +1)))

Therefore in this example;

£30 of zero rated expenditure = £0 at the standard rated equivalent

£20 of reduced rate expenditure = £5.71 at the standard rated equivalent

£50 of standard rated expenditure = £50 at the standard rated equivalent

Total standard rated equivalent = £55.71

[13] Government Expenditure and Revenue Scotland. Sector weights provided in the 'Detailed revenue methodology paper 2017-18' (link)

29 We expect that the assignment model will use estimates from the Living Costs and Food Survey (LCF) to assign household consumption expenditure to Scotland.[14]

30 The LCF is conducted by the Office for National Statistics (ONS) for the whole of the UK and provides regional breakdowns of spending. There is substantial variability in the estimates for Scotland between years. This will be due, in part, to the relatively small number of Scottish households sampled in the historic dataset. 360 households were sampled for 2016/17.[15]

31 HMRC and the Scottish Government have jointly funded a boost to double the LCF sample in Scotland from 2017/18 onwards. This will increase the survey coverage and should, to some extent, reduce the impact of statistical variability within the sample. However, we expect that there will continue to be sizeable variation in the estimates for Scotland. Despite doubling the size of the sample, the expected 600-700 households is still a reasonably small sample. In addition, sample size isn't the only source of volatility. Actual Scottish consumption patterns, including spending patterns and disposable income, may change from one year to the next. It will not be possible to determine how much volatility is due to actual consumption patterns and how much is due to sample size.

Exempt

32 The exempt sector includes industries such as financial services, insurance, real estate, education, postal and courier services and human health activities. This is the second biggest sector for the purposes of VAT assignment. GERS estimates that the exempt sector accounted for 16 per cent of assigned VAT revenue in 2014.

33 The outputs from the businesses in this sector are exempt from VAT and so they do not charge output tax. However, they still pay tax on the goods and supplies they purchase (input tax). As the output from these businesses is exempt from VAT they cannot claim back VAT from their inputs, so exempt businesses are a source of VAT revenue.

Government

34 Some government expenditure is liable for VAT, and government is the third biggest sector for the purposes on VAT assignment. GERS estimates that

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[14] The LCF is carried out by the ONS and collects information on spending patterns within households. More information is provided on the ONS website (link)

[15] Regional breakdowns of household spending as estimated by the living costs and food survey. Available on the 'Personal and household finances' section of the ONS website (link)

government expenditure accounted for 11 per cent of assigned VAT revenue in 2014.

35 Many of the activities performed by public bodies are outside the scope of VAT. However, if public bodies are supplying goods or services which are often also supplied by other traders (such as: catering, medical services, or consulting) these would be counted as business supplies and be liable for VAT.[16] Whether a body can reclaim VAT or not depends on a variety of reasons such as how it is funded and what its output is. The three main areas of public body spending for VAT purposes are public administration, defence and human healthcare activities.

Housing

36 The 'housing' sector in Figure 1 comprises housing investment costs not already included in household expenditure. VAT is charged on major repairs and improvements to private dwellings, transfer costs (minus Land and Buildings Transaction Tax and land registry fees) and on some public sector capital expenditure. New builds are zero rated so are not included. The contribution of this sector to gross expenditure liable for VAT is expected to be small.

Foreign tourism

37 Within the OBR's UK VAT forecast, foreign tourism is included in the household sector. We are not currently following this approach as it does not seem reasonable to assume spending by foreign tourists would follow spending by Scottish households. The contribution of this sector to to gross expenditure liable for VAT is expected to be minimal.

Step 2: Growth determinants

38 The choice of forecast determinant for each sector is a judgement. We aim to use Scottish specific determinants as much as possible to capture movements in the Scottish economy. Our approach has been informed by the approach taken at the UK level by HMRC and OBR, but we make adjustments as necessary for Scotland.

39 Each selected determinant is chosen as the most appropriate approximation to growth in VAT-liable goods and services in each sector which is currently available. For each determinant, this will include some expenditure not in scope of VAT. Changes in the composition of spending over time could affect how well the determinant performs in forecasting VAT. In addition, each determinant will be subject to its own forecast error.

[16] Value Added Tax Act 1994 (link)

40 Over time, as more years of assignment outturn data become available for Scotland, we will be able to evaluate how our selected determinants compare against the available assignment outturn data, and make adjustments to our approach as necessary. At present, given that there is no historic assignment outturn data available, our selection of forecast determinants is largely a judgement.

Households

41 The Household sector will be forecast to grow over the forecast period in line with nominal Scottish household consumption in our economy forecast.

Exempt

42 Expenditure from the exempt sector will be forecast to grow in line with nominal Scottish GDP from our economy forecast.

Government

43 Government expenditure will be forecast to grow in line with nominal government consumption in our economy forecast. This is based upon the simplifying assumption that total government consumption in Scotland tracks government procurement for the purposes of VAT.

Housing

44 We propose holding the growth of VAT from housing investment constant over the forecast period. The Commission will develop this, but will be constrained by the availability of Scotland specific data.

Foreign tourism

45 Foreign tourism will be forecast to grow in line with our forecast of exports to the rest of the world from our economy forecast. Our exports forecast includes estimates of the effects of exchange rates and Brexit. These factors are also expected to affect expenditure by foreign tourists. We make the assumption that changes to expenditure by foreign tourists will be in line with changes to the other components of our exports forecast.

Step 3: Standard, reduced and zero rated shares

46 Any changes in spending patterns in relation to the division of expenditure between standard rate, reduced rate and zero rated goods will impact on VAT revenue. For example, consumer durables, such as televisions, are generally charged at the standard rate of VAT (20 per cent), whereas necessities, such as food, are more likely to be zero rated. Therefore, if

consumers were to shift their spending away from durables to necessities VAT revenue would decline.

47 The relative spend in each of these categories is an important judgement in our forecast.

Households

48 At the UK level, OBR project the standard rated share (SRS) for household expenditure using an econometric model commissioned from HMRC. The SRS model is primarily driven by the forecast for spending on durable goods such as cars.

49 Due to lack of granular data on Scottish specific spending patterns, our judgement is that complex modelling would currently be inappropriate. However, the standard rated share of expenditure is likely to be higher in Scotland than the UK average because a lower proportion of expenditure is on exempt goods and services (e.g. rent) and a higher proportion is on standard rated goods (e.g. alcohol).[17] We will therefore take the latest data on the standard rated share from the assignment outturn model as the baseline for our forecast and then track the course of the HMRC SRS forecast. In doing this, we make the assumption that overall trends in the composition of spending in Scotland will match those in the rest of the UK.

Other sectors

50 We will take the latest data on the standard rated share from the assignment outturn model as the starting point for our forecast and hold this constant over the forecast period. In doing this, we mirror the approach taken by OBR at the UK level.

Step 4: Domestic tourism adjustment

51 Steps 1 to 3 give us a forecast of gross expenditure liable for VAT which would be assigned to Scotland (at the standard rate equivalent).

52 Further adjustments may need to be made to this estimate to capture the impact of UK households' spending in areas outside their home location, and how this may change over time.

53 We will monitor patterns in domestic tourism spending. If there is no clear trend for the data included in the assignment outturn model we will hold the mean adjustment, as a proportion of gross expenditure, constant over the forecast period.

[17] Data available from the ONS Living Costs and Food Survey (link).

Step 5: Other adjustments

54 Our assignment forecast model to this point assumes that VAT is paid on all eligible expenditure, but there are a number of legitimate reasons for VAT not to be collected. For example, if traders are below the VAT registration threshold (£85,000 in 2017-18), they generally do not charge VAT on their goods and services, or reclaim tax on inputs.[18] There are also various schemes and reliefs which allow businesses to reclaim VAT where they could not do so under normal VAT rules.

55 We expect unregistered traders and these other adjustments to result in an overestimation of expenditure liable for VAT, and a correction would need to be made. We will monitor these adjustments as data become available. If there is no clear trend for the data we will hold the mean adjustment, as a proportion of gross expenditure, constant over the forecast period.[19]

Step 6: Converting expenditure to VTTL

56 Steps 4 and 5 will convert our forecast of assigned gross expenditure liable for VAT to assigned net expenditure liable for VAT at the standard rate equivalent and VAT inclusive prices. Net expenditure is then multiplied by the VAT fraction to provide our forecast of the assigned Scottish VAT total theoretical liability' (VTTL),[20] the total value of VAT that could theoretically be collected from the tax base.

Step 7: Applying the tax gap

57 The VTTL will not include any adjustments for error, fraud, evasion, avoidance and debt to HMRC and therefore will always be higher than outturn VAT receipts. The percentage difference between the VTTL and actual receipts is the estimated VAT tax gap.[21]

58 As there will be no VAT receipts outturn data for Scotland, it is not possible to estimate a Scottish specific VAT gap. We will therefore take the percentage difference between the UK VTTL as estimated by the assignment outturn model and the UK tax receipts as published by HMRC to

[18] VAT registration thresholds (link)

[19] Historically an adjustment would have been needed for place of supply. Place of supply refers to corrections made where goods were brought (normally online) outside the UK. From April 2015, the rule changed so that VAT is charged based on the location of the consumer not the seller. Therefore, when calculating adjustments for the forecast period we will discount the impact of place of supply from the assignment outturn model data.

[20] Expenditure is estimated at the standard rated equivalent inclusive of VAT. This means that in order to calculate the VAT paid on this expenditure the following equation is used;

*Standard rated equivalent * (0.2 / (0.2+1)) = VAT revenue*

[21] HM Revenue & Customs (2018) Measuring tax gaps: Tax gap estimates for 2017-18 (link)

provide a tax gap for the years covered by the assignment outturn model.[22] This tax gap will then be projected forward in the assignment forecast model following the growth rate of the OBR's tax gap forecast for the UK.[23]

Step 8: Policy costings

59 VAT is assigned rather than devolved. This means the Scottish Government will not have any policy control over VAT. The UK Government could make policy changes which impact on the VAT collected in three ways;

- changes to the rate of VAT
- changes to the tax gap through policies aimed at targeting error, fraud, evasion or avoidance
- changes the range of goods and services liable for VAT, the VAT base

Policies to change the rate of VAT

60 The UK government could change the rate of VAT. For example, the standard rate of VAT was increased from 17.5 per cent to 20 per cent in 2011.

61 The Fiscal Framework agreement between the Scottish and the UK Governments states that receipts from the first 10p of the standard rate of VAT and the first 2.5p of reduced rate of VAT, for every pound of VAT-liable expenditure in Scotland will be assigned to the Scottish Government.[24] Currently, this equates to 50 per cent of VAT of revenue but changes to the rate will only directly impact on the VAT assigned to Scotland if the standard rate goes lower than 10 per cent or the reduced rate goes lower than 2.5 per cent. It is possible that changes to the rate of VAT could affect VAT assigned to Scotland though behavioural changes in consumer spending. Direct impacts on consumer behaviour, for example changes in the composition of spending, would be captured by the SRS model. Indirect changes in aggregate consumer spending would be captured through our whole economy forecasts.

Policies which change the VAT gap

62 Policies which could impact the tax gap would include any aimed at targeting error, fraud, evasion or avoidance.

[22] Outturn receipts available on the HMRC website (link)

[23] OBR Economic and Fiscal Outlook (2018) (link)

[24] Scottish Government and UK Government (2016) The agreement between the Scottish Government and the United Kingdom Government on the Scottish Government's fiscal framework (link)

63 Policies affecting the tax gap should be picked up within the OBR's tax gap forecast. Our default assumption will be that policies will have the same effect in Scotland as in the rest of the UK.

Changes to the VAT tax base

64 UK government policies which change the range of goods and services liable for VAT or changes to which goods are taxed at standard or reduced rate will affect the VAT assigned to Scotland.

65 In order to take account of these policy changes in our forecast we will use the OBR policy costings database as a starting point. If we judge that the policy affects the VAT base, we will apply a share of the OBR's costing to the forecast of VAT assigned to Scotland. In the majority of cases this will simply be the UK costing multiplied by the proportion of total UK VAT which is assigned to Scotland in the last year of data available in the assignment outturn model. In other cases, where there is evidence to indicate that the relative cost to Scotland will be higher or lower than in the rest of the UK, we will use this to make a judgement on how to adjust our forecast.

Step 9: Assignment

66 Steps 1 to 8 will give an estimate of assigned Scottish VAT receipts. The final step is to convert this to the value assigned to the Scottish budget. Currently this is 50 per cent of the receipts.

Key forecast drivers

67 Household expenditure accounts for the majority of VAT revenue assigned to Scotland (GERS estimates that it accounts for approximately 70 per cent of VAT revenue).[25] Therefore, changes in the growth rate of household consumption will have a large impact on our VAT forecast. As can be seen in Figure 2, consumption is expected to grow more slowly in Scotland, largely because population in Scotland is expected to grow more slowly than in the rest of the UK. As a result, it is likely that VAT revenues will grow more slowly in Scotland than in the UK.

68 The exempt sector and government sectors account for the majority of VAT revenue not already accounted for by household expenditure. GERS estimates that expenditure in these three sectors will make up over 95 per cent of VAT revenue assigned to Scotland. Therefore our Scottish economy forecast in combination with the OBR's UK forecast will largely determine the change to the share of total UK VAT revenue assigned to Scotland. Table 2 and Figure 2 show the forecast for growth in the determinants used for these sectors compared to the UK as a whole. Over the medium term growth in all three of these determinants is expected to be slower in Scotland.

69 The financial impact of VAT assignment on the Scottish Government's budget will be determined by a combination of our VAT assignment forecast and the block grant adjustment. The timetable for how the budget will be reconciled to the outturn data from updates to the assignment outturn model is yet to be determined.

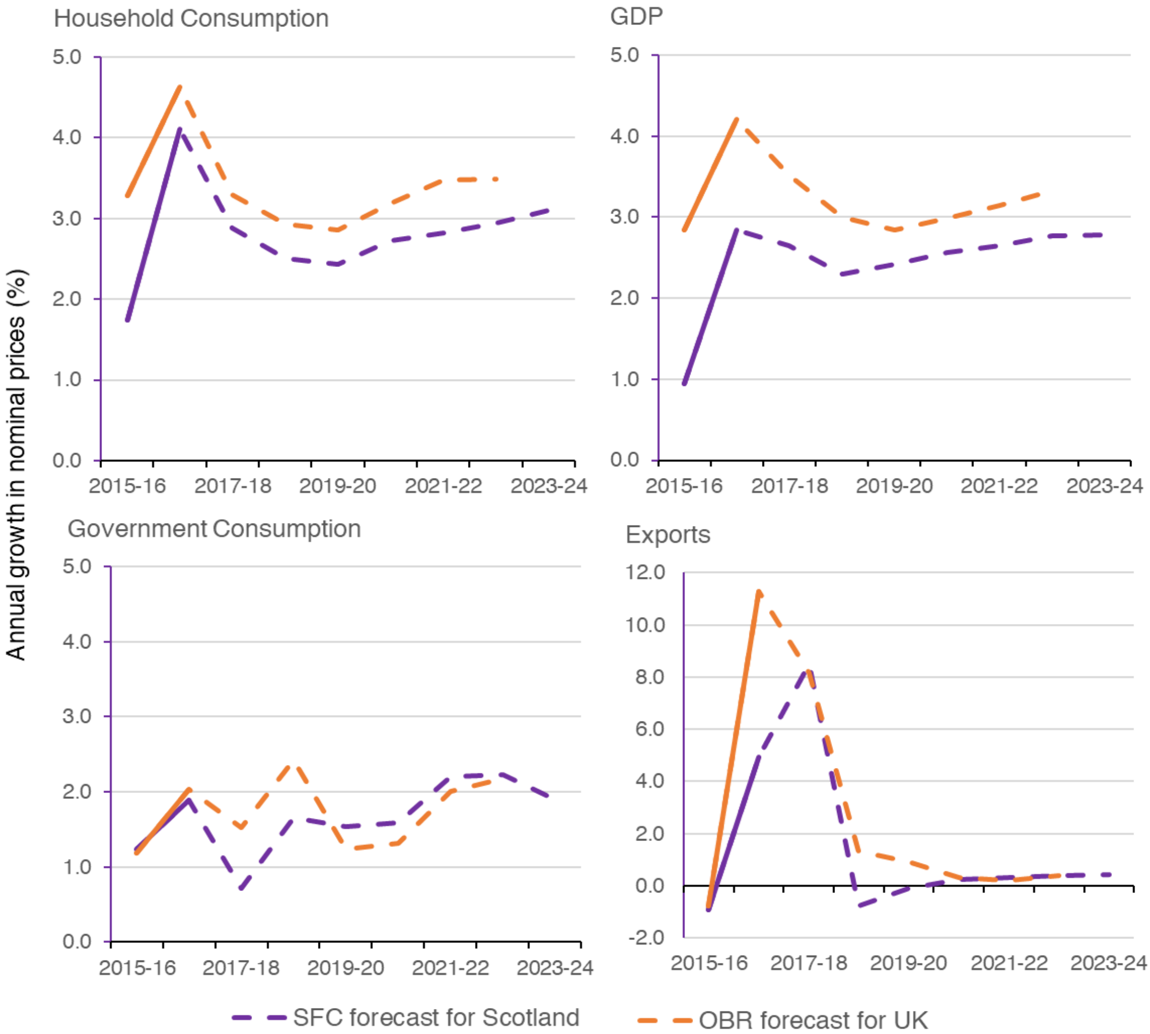
Table 2: Growth determinants used in the forecast of VAT assignment for Scotland against the equivalent determinants for the UK. Per cent change on previous financial year.

	Household consumption		GDP		Government Consumption		Exports	
	Scotland	UK	Scotland	UK	Scotland	UK	Scotland	UK
2015-16	1.7	3.3	0.9	2.8	1.2	1.2	-0.9	-0.8
2016-17	4.1	4.6	2.8	4.2	1.9	2.0	4.9	11.3
2017-18	2.9	3.3	2.6	3.5	0.7	1.5	8.5	8.2
2018-19	2.5	2.9	2.3	3.0	1.7	2.4	-0.8	1.3
2019-20	2.4	2.9	2.4	2.8	1.5	1.2	-0.1	0.9
2020-21	2.7	3.2	2.6	3.0	1.6	1.3	0.2	0.3
2021-22	2.8	3.5	2.6	3.1	2.2	2.0	0.3	0.2
2022-23	2.9	3.5	2.8	3.3	2.2	2.2	0.4	0.4
2023-24	3.1		2.8		1.9		0.4	

Source: 1. SFC (May 2018) Scotland's Economic and Fiscal Forecasts (link). 2. OBR (March 2018) Economic and Fiscal Outlook (link).

[25] Government Expenditure and Revenue Scotland (2018). Sector weights provided in the 'Detailed revenue methodology paper 2017-18'. (link)

Figure 2: Growth determinants used in the forecast of VAT assignment for Scotland against the equivalent determinants for the UK. Per cent change on previous financial year.



Source: 1. SFC (May 2018) Scotland's Economic and Fiscal Forecasts (link). 2. OBR (March 2018) Economic and Fiscal Outlook (link).

Key assumptions and areas of uncertainty

70 The Commission will make judgements where there is uncertainty or limited evidence.

71 As VAT is a major source of government revenue, there will also be circularity between the VAT forecast and the main economy forecast. Deciding how to account for this feedback will be an area of judgement for the Commission.

72 Due to the lack of Scottish specific outturn data for VAT, the Commission will assume, in a few areas of the forecast, that the determinants of VAT assignment in Scotland will follow the same patterns as VAT revenue in the rest of the UK:

- Tax gap
- Standard, reduced and zero rated shares in household expenditure
- Policy costings, although adjustments to make these more specific to Scotland will be made where data allows.

Risks to the forecast

Variability in the assignment outturn model

73 As discussed earlier, outturn receipts will not be available for VAT raised in Scotland. This means that both the baseline and the evaluation for our forecasts will be based on estimates from a statistical model. Neither the SFC nor the Office for Budget Responsibility (OBR) have control over the judgements or approaches taken within this model.

74 Household expenditure accounts for the majority of VAT revenue assigned to Scotland. Any approach to assigning household expenditure liable to VAT to Scotland would rely heavily on the LCF to estimate the proportion of UK expenditure occurring within Scotland. Despite the boost to the survey sample from 2017-18 it is likely that this estimate will have a large confidence interval. This variability will affect both the baseline for our forecast and our forecast evaluation.

The UK's changing relationship with the EU

75 On 23 June 2016 the UK electorate voted to leave the EU. On 29 March 2017 the British Government invoked article 50, triggering the process for the UK to leave the EU by March 2019. The final outcome of the negotiations remains unknown.

76 In addition to the wider uncertainty around how leaving the EU will impact the UK and Scottish economy,[26] it is not currently known how goods from the EU will be treated for VAT purposes. Importing firms do not at present pay VAT on goods imported from the EU. Goods imported from outside the EU require VAT to be paid on the good before it is claimed back at a later date.

77 If the arrangement changed, and EU imports were treated the same as imports from the rest of the world, this would be likely to alter when VAT receipts reach the Exchequer. The cash flow effect could lead to a behavioural response from importing companies. There is also further uncertainty around the administration and enforcement of such changes.

78 As a decision has yet to be taken on how goods from the EU will be treated for VAT purposes, it is impossible to estimate what effect this will have on our forecast of Scottish VAT. We will monitor the situation and work closely with the OBR in order to understand what assumptions would need to be made.

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[26] See our earlier publication 'Scotland's Economic and Fiscal Forecasts. May 2018' for a more detailed discussion of the potential impact on the Scottish economy (link)

Abbreviations

EU	European Union
GDP	Gross Domestic Product
GERS	Government Expenditure and Revenue Scotland
HMRC	HM Revenue and Customs
LCF	Living Costs and Food Survey
NPISH	Non-Profit Institutions Serving Households
OBR	Office for Budget Responsibility
ONS	Office for National Statistics
SFC	Scottish Fiscal Commission
SRS	Standard Rated Share
UK	United Kingdom
VAT	Value Added Tax
VTTL	VAT Total Theoretical Liability

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