

# Revenue Scotland Statistics Users Day

Wednesday 30 January 2019

# Use of Devolved Taxes Statistics for Forecasting

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# The Scottish Fiscal Commission

How we use the devolved tax statistics for forecasting

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# What does the Scottish Fiscal Commission do?



The Scottish Fiscal Commission produces independent forecasts of Scotland's:

- Revenue from fully devolved taxes and Non-savings Non-dividend income tax receipts
- Devolved social security expenditure
- Onshore Gross Domestic Product (GDP)

And reports on the Scottish Government's borrowing projections.

# What does this look like in practice?



- Two forecasts per year:
  - i. Budget (usually December)
  - ii. Medium Term Financial Strategy (usually May)
- An evaluation of our forecasts once per year (usually September)
- Documents in support of our forecasts (ad hoc analysis or exposition of methods)

# What are our forecasts?

Scotland's Economic and Fiscal Forecasts December 2018

Economy	2018	2019	2020	2023	% growth
GDP	1.4	1.2	1.0	1.2	Growth has been revised up in the shorter term, growth in the longer term is subdued
Trend Productivity	0.3	0.7	0.9	1.2	Productivity growth gradually starts to increase after periods of slow growth
Nominal Earnings	2.0	2.3	2.5	3.1	Nominal earnings higher than in our May 2018 forecast, and expected to gradually increase
Real Earnings	-0.3	0.3	0.5	1.1	Real earnings growth expected to remain low by historic standards
<b>Tax</b>	<b>2018-19</b>	<b>2019-20</b>	<b>2020-21</b>	<b>2023-24</b>	<b>£ million</b>
Income Tax	11,452	11,664	12,285	13,605	In 2018-20, income tax revenue is expected to be £981 million lower compared to our May 2018 forecast
Non-Domestic Rates	2,827	2,765	2,887	3,332	New policy measures introduced and data updates have reduced our forecast across the period
LBTT	569	643	680	767	Residual LBTT forecasts revised down, but new policies on ADD and non-residential LBTT increase forecasts
Scottish Landfill Tax	196	104	83	14	The Scottish Government's ban on the landfill of biodegradable municipal waste reduces the forecast from 2021
<b>Social security</b>	<b>2018-19</b>	<b>2019-20</b>	<b>2020-21</b>	<b>2023-24</b>	<b>£ million</b>
Carer's Allowance (inc. Supplement)	101	320	345	412	Carer's Allowance was devolved in September 2018. Carer's Allowance Supplement was introduced in 2019
Discretionary Housing Payments	61	63	65	69	Forecast increases driven by rise in the cost of mitigating the bedroom tax
Employability	19	19	28	0	In April 2018, First Minister Nicola Sturgeon announced a new £100 million fund to support employment in 2018-21
<b>Policy Announcements - Tax</b>	<b>2019-20</b>	<b>2020-21</b>	<b>2023-24</b>	<b>£ million</b>	
Income Tax	68	-71	84	High rate threshold is set at £45,000, the same as in 2018-19	
Non-Domestic Rates	-42	-46	-41	Forecasts set at -40.0p, continuation of temporary relief and the introduction of a relief for new taxa	
LBTT	39	36	41	Increase in Additional Dwelling Supplement rate to four per cent. Changes to non-residential LBTT rates and thresholds	
<b>Policy Announcements - New Benefits</b>	<b>£ million</b>				
Best Start Grant	12	13	15	Best Start Grant consists of free payments: Baby and Pregnancy, Early Learning and School-Age	
Funeral Expense Assistance	0	6	7	Funeral Expense Assistance replaces Funeral Payments in 2019	
Best Start Foods	4	5	4	Best Start Foods replaces Healthy Start Vouchers in 2019	

- A five financial year ahead projection
- A point forecast – we do not forecast a range of outcomes
- A set of policy costings – an estimate of the tax revenue gained or foregone because of a change in government policy

# **DEVOLVED TAX FORECASTS – THE CASE OF LAND & BUILDINGS TRANSACTION TAX (LBTT)**

# Why do we need the Revenue Scotland statistics?

Table 3.20: LBTT forecasts

£ million	2017-18 Outturn	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24
Total LBTT revenue raised	557	569	643	680	716	751	787
of which:							
Residential (excluding ADS)	258	267	296	324	349	373	398
Additional Dwelling Supplement (ADS)	95	94	122	123	127	130	134
Non-residential	204	208	226	233	240	247	255

Source: Scottish Fiscal Commission, Revenue Scotland (2018) Annual Report and Financial Statements 2017-18 ([link](#)).

Figures may not sum because of rounding.

- A starting point for our forecasts – to know the size of the tax base and the tax take
- The basis for our forecasting models
- When policy changes happen – we need to understand the dimensions of relevant sections of the market (e.g. the number of transactions claiming Group Relief)

Table 1: Transactions claiming Group Relief

	2015-16	2016-17	2017-18
Estimated number of transactions claiming Group Relief	330	310	370
Estimated Group Relief claimed by group transactions (£ million)	79.6	66.0	49.1

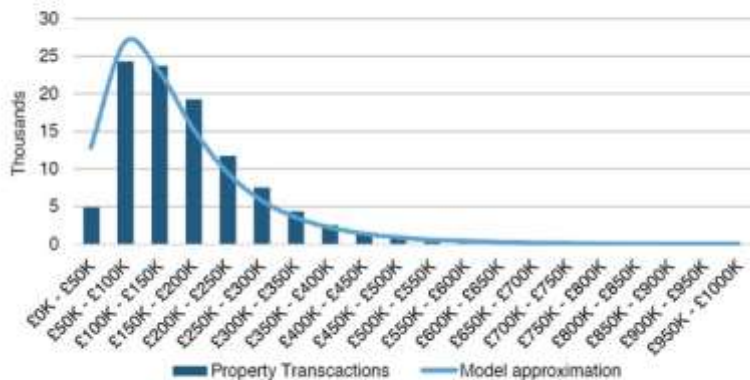
Source: Scottish Fiscal Commission, Revenue Scotland



# What Revenue Scotland statistics do we regularly use?

- Number of transactions
- Distribution of transactions across prices
- Mean prices
- Median prices
- ADS paid
- ADS reclaimed – how much and by when

Figure 3.8: Distribution of Scottish property transactions in 2017-18 & SFC model approximation



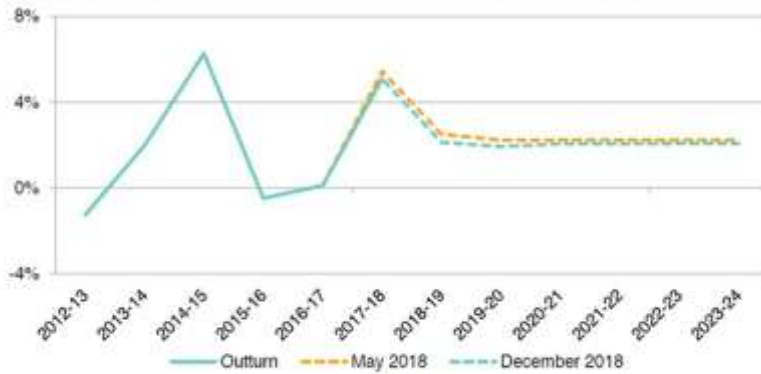
Source: Revenue Scotland (2018) Effective date basis data provided for forecast evaluation ([link](#)), Scottish Fiscal Commission.

We also use revenue statistics from Revenue Scotland's Annual Report and Financial Statements

# Other statistics we use

- Registers of Scotland data on house prices and transactions
- UK Finance data on mortgage lending (e.g. buy-to-let lending)
- Scottish housing survey and NRS data on households and household projections
- Bank of England & Royal Institute of Chartered Surveyors (RICS)

Figure 6: Scotland average house prices (annual per cent change)

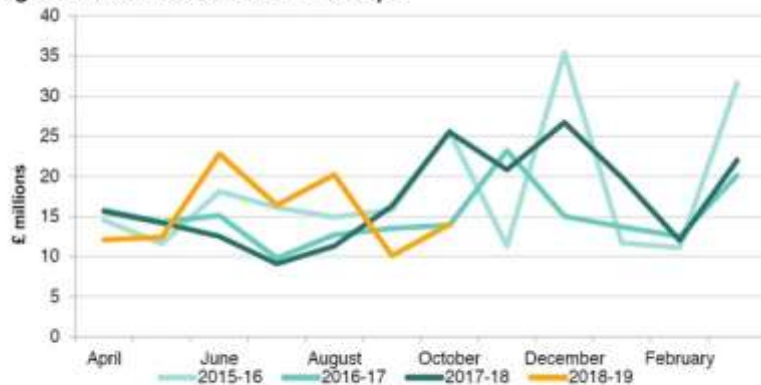


Source: Scottish Fiscal Commission, Registers of Scotland ([link](#)). Registers of Scotland transaction statistics cover properties between £20,000 and £1,000,000. Registers of Scotland growth rates are based on date of registration while Commission's forecast is on effective date basis.

# **HOW WE USE THE STATISTICS – THE CASE OF NON-RESIDENTIAL LBTT**

# Our forecast – step 1 – the in-year forecast

Figure 3.8: Non-residential LBTT receipts

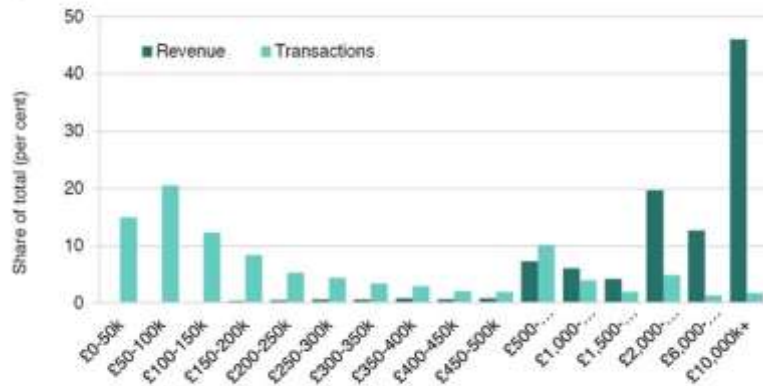


Source: Revenue Scotland (2018) LBTT Statistics – October 2018 ([link](#)).  
Effective date data available up to August 2018. Data for September 2018 onwards is based on date of return.

- We use an average of the revenues received over the past three years to create a pattern for the revenues we would typically expect to have received by the end of any month
- We apply this pattern to the Revenue Scotland data on revenues raised for the financial year so far

# Our forecast – step 2 – the base year for the rest of the forecast

Figure 3.7: Non-residential LBTT transactions and revenue distribution 2017-18

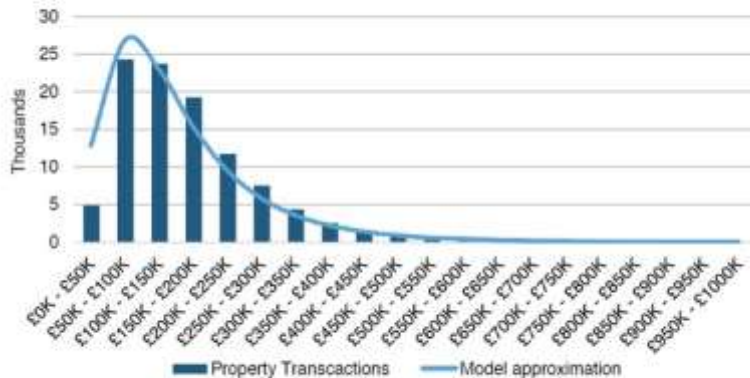


Source: Revenue Scotland ([link](#)).

- Non-residential LBTT revenues are very volatile from year to year, so to create a stable base, we take an average of the previous three years' distributions of transactions
- We then project our base year forward, using a combination of a short term projection model and the Commission's forecast for growth in nominal GDP

# Forecast evaluation

Figure 3.8: Distribution of Scottish property transactions in 2017-18 & SFC model approximation



Source: Revenue Scotland (2018) Effective date basis data provided for forecast evaluation ([link](#)), Scottish Fiscal Commission.

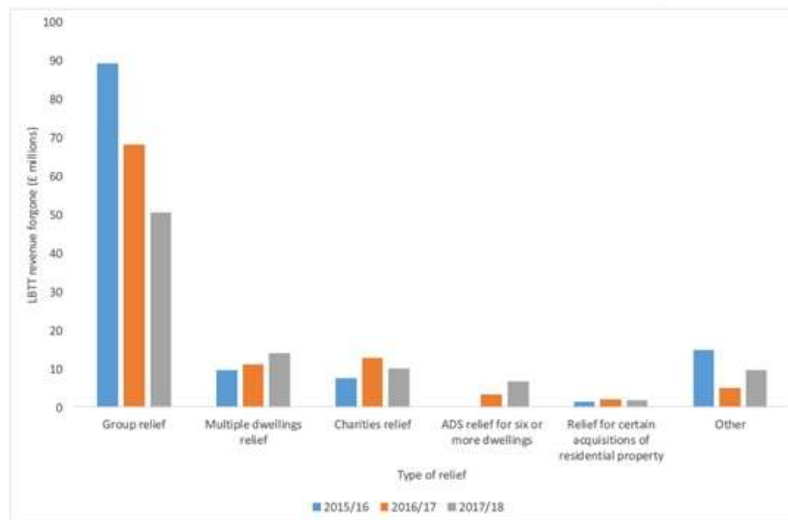
We use Revenue Scotland data to answer questions like:

- What was our revenue forecast error?
- Was the approximation we made in our residential model for the distribution of transactions a reasonable one?
- What was the error in our projection for the proportion of ADS reclaimed by a certain date?

**How can we improve for our next forecast?**

# Policy costing – the example of Group Relief

Figure 21: Estimated LBTT revenue forgone to reliefs by type of relief and year



- In 2018, the Scottish Government introduced an amendment to the LBTT Group Relief, allowing companies with a share pledge arrangement in place to claim
- While we suspected that the revenue impact would be very small, we had no data to base our estimates on
- Revenue Scotland pulled together the high-level statistics that made the costing possible
- Some of these data are in the Annual Summary of Trends in the Devolved Taxes report (figure 21 on page 40)

**WHAT ARE SOME OF THE OTHER  
THINGS THE STATISTICS TELL US?**



# The split between sources of revenue

Table 3.20: LBTT forecasts

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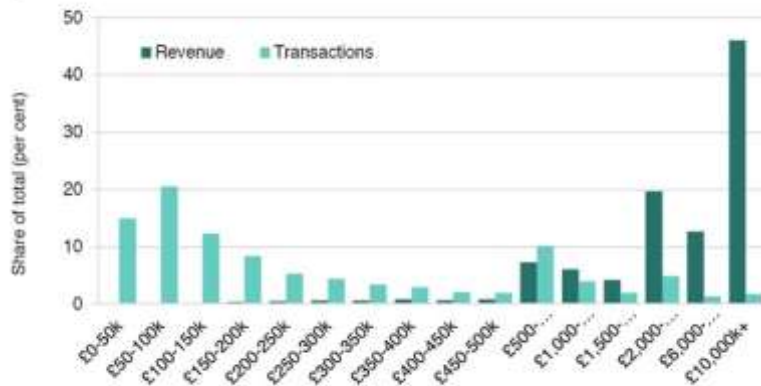
(£m)

Figures may not sum because of rounding.

- The residential market (including ADS) accounted for 63 per cent of LBTT revenues. In 2017-18 and we expect that share to be 65 per cent for 2018-19.
- Largely because of the increase in the rate of ADS from 3 per cent to 4 per cent, we expect the residential share to rise further to 66 per cent in 2019-20

# The concentration of the tax base

Figure 3.7: Non-residential LBTT transactions and revenue distribution 2017-18

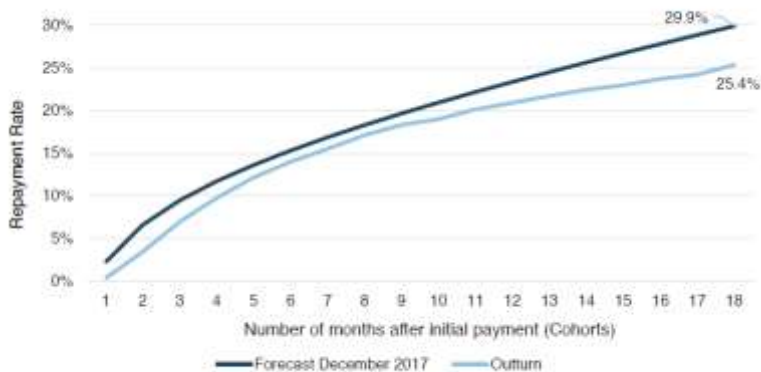


Source: Revenue Scotland ([link](#)).

- 50 per cent of residential LBTT revenue comes from the top 3.5 per cent highest valued transactions. 50 per cent of non-residential LBTT revenue from conveyances comes from the top 2 per cent highest valued transactions
- This means that small variations in the number of high valued transactions can have significant ramifications for our forecast errors

# How much ADS is being reclaimed and when

Figure 3.10: Liabilities repayment curve – monthly rates



Source: Revenue Scotland (2018) Effective date basis data provided for forecast evaluation ([link](#)), Scottish Fiscal Commission (2017) Scotland's Economic and Fiscal Forecasts – December 2017 ([link](#))

- Data provided for our Forecast Evaluation Report in 2018 showed that our first forecasts made in December 2017 were over-estimating the proportion of ADS being reclaimed, in particular after 12 months
- Further data will be able to show us the extent to which people are reclaiming ADS after the 18 month window for transferring main residence

# STATISTICAL ADVICE

# Is it all about the statistics?

## **Appendix A Date of submission versus effective date**

The purpose of this appendix is to explain the basis on which Revenue Scotland's LBTT statistics are produced and to demonstrate that data based on the date of submission is similar in value and trend to data on an effective date<sup>R</sup> basis, except at the ends of time series and near policy changes. Furthermore, it will be demonstrated that it can take up to eight weeks from the effective date for the majority (99 per cent) of LBTT returns to be submitted, whereas no such time lag exists for data produced by date of submission.

## **Appendix B Comparison of Published Statistics with Revenue Scotland's Annual Report and Financial Statements**

The purpose of this appendix is to explain how Revenue Scotland's monthly LBTT statistics relate to the figures for LBTT revenue that appear in the Devolved Taxes Account in Revenue Scotland's Annual Report and Financial Statements as the figures are produced on a different basis.

- No. We rely on the expert advice from Revenue Scotland on the quality of their data, the accounting methods behind their data and how to interpret their data in our work.
- For two examples, see Appendices A & B on pages 51 to 54 of the statistical trends publication, which contain important technical notes on the statistics we use.

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# Workshop

# Workshop

## 1. Feedback on:

*Revenue Scotland Statistics Annual Summary of Trends in the Devolved Taxes 2017/18*



# Workshop

## 2. Discussion of potential changes to statistics publications

# Break

# Questions and Closing Remarks

Keith Nicholson  
*Chairman*

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