

## 610113 – New Cars

### Introduction

This index covers the cost of purchasing a new car.

### Methodology

The index is calculated by looking at the monthly changes in car prices. The base price is adjusted each month to take into effect any quality improvements that occur in that month.

### Description of prices used in the index

Prices are collected for the cost of **26** different cars made by different manufacturers. **As of 2021 Hybrid and Electric cars have their own item number and separate collection spreadsheet consisting of 15 price quotes.** Wherever possible, a price is given to any specification changes to account for perceived quality changes.

### Weights

In any particular year, the percentage market share (of expenditure) for each manufacturer in the index is established and a weighting for each manufacturer is then calculated. (Not every car producer can be considered.)

The weights information is obtained from **Household Expenditure branch in National Accounts and our current contact is** [REDACTED]

**NOTE FOR THE 2022 rewrite:** currently the petrol/diesel car is looking for the car weights information in the wrong file path (it's looking for a 'branch 1 /cars' folder on sharepoint) and this means that the spreadsheet always asks you to update links, if possible we should either find a way to link to the actual file on the T drive, copy and paste values, or put the weights file on sharepoint.

### Obtaining the data

For the first time, in 2012, the new car prices were collected via the internet.

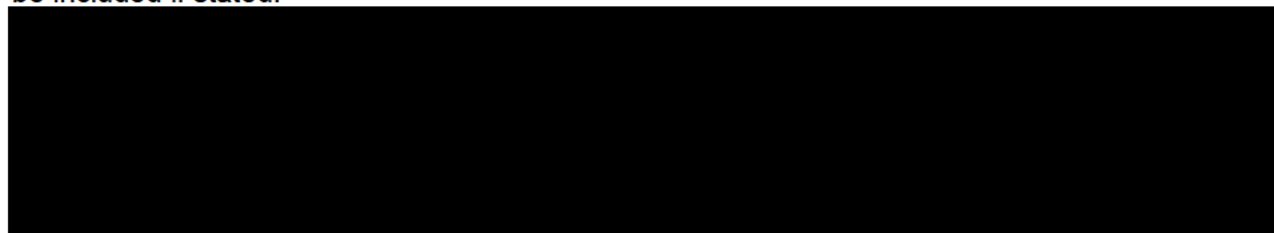
From each website, the allocated Prices Analyst should collect the same item that was collected in the previous month. Create a PDF print of the item, ensuring that the price (including any customer discount\*) is visible on the print. **The collected price should be the On the Road (OTR) price which is the recommended retail price (RRP) plus first year's Vehicle Excise Duty (VED), delivery costs (if applicable), registration costs (£55 in 2020), and any other costs. Most websites display OTR prices,** [REDACTED]

The PDF print also needs to contain the item specification and ideally also a photo of the item as well.

Save the PDF in to this folder: [REDACTED]

– where YY is the year, and MM is the current month. So, for this collection, 35 PDFs should be created each month.

\*Customer discount is not always available when you collect a price from car websites but must be included if stated.



Enter the price data into the '**Input**' sheet, for the relevant month. The final price for this item will then automatically be calculated and the final price column populated. If applicable, also enter the discount price (in some cases you will need to calculate this by deducting the Recommended Retail Price (RRP) price from the Retail on the Road Price (RPTR) / **On the Road (OTR)** price in the discount column of the '**Input**' sheet, for the relevant month. The final price for this item will then automatically be calculated and the final price column populated. The cells where data should be inputted are pale yellow in colour. The price will be in bold red text if the price is a decrease on the previous month, and bold blue text if the price is an increase.

If it is not possible to collect the same item as last month, there are three courses of action:

- 1) If the item is temporarily out-of-stock, then enter a '**T**' into the indicator code area of the spreadsheet, for the relevant month;
- 2) Where a vehicle has changed in price and quality (e.g. the engine has been updated, the model derivative collected last month is no longer available, or the model range has been updated or refreshed), a quality adjustment can be applied. The adjustment is based on the difference in price between the latest and previously collected prices. This is entered into column K of the '**Input**' worksheet. The proportion of the adjustment is then entered in column L as a fraction e.g. 0.5, which is the usual proportion applied to a quality adjustment. Where 0.5 is used, the new base price is calculated based on the new price less half of the price change. For example: if the previous price = £10,000 and the new price = £11,000 then the quality adjustment would be £1,000. The new base price would be calculated based on a current price of £10,500 (i.e. £11,000 – 0.5 \* £1,000).
- 3) If the item is permanently out-of-stock, or this is the third month that the item has been temporarily out-of-stock, then a replacement needs to be selected. Try to select a replacement that is as close to the item that is no longer available as possible, paying attention to the brand and basic features of the item. If the replacement is similar to the old model, then enter a '**C**' into the indicator box. If the item is not similar to the one it has replaced, then enter an '**N**'.

For options 2) and 3) above ensure that the details of the collected vehicle are updated. Enter the details of the new or updated vehicle into the row for the current month within the relevant quote table. The details included the vehicle Make, Model and Description along with the new specifications [Engine Size; Gearbox type (manual or automatic); Body style (H/b – Hatchback, SUV, Convertible); Number of doors] into relevant columns.

In the data notes box on the index tab, make a note of the item change.

The spreadsheet will automatically work out the index and new base prices, if a new item has been collected. This is all done in the '**Input**' worksheet. As this sheet is fully automated, there is no need for any action to be taken here on a monthly basis. The overall index is shown on the '**Index**' worksheet. This is formatted in green, with the text in bold red if the index has decreased, and bold blue text if the index has increased from the previous month.

Once all the prices, indicator codes and new item descriptions (if relevant) have been inputted to the '**Input**' worksheet, add an overall story if necessary, into the yellow data notes box in the '**Index**' worksheet. This could be information relating to a particular manufacturer that has a sale, or one type of item that has seen a price change which needs explaining. This information is useful for the briefing meeting. Once an explanation has been entered, print out the '**Index**' worksheet and pass to the spreadsheet checker. There is no need to print out all the PDFs unless requested to do so by the Team Co-ordinator, Senior Prices Manager or Principal Prices Manager (Branch Head).

Once the spreadsheet has been checked, the indices are entered onto the computer system via open road by the Prices Analyst and the signed printout of the spreadsheet passed on to the Team Co-ordinator. Once the spreadsheet is completely signed off (it will also be scrutinised by the Senior Prices or Principal Prices Manager) the printouts should be filed away in the working file.

## New Year Set-up

The following instructions describe how the sample is selected and the weights created for both the “new” and “used” cars.

[REDACTED] (our contact on the team) then provides a complete quarterly file of all vehicles newly registered within the UK, including the number of vehicles and their prices.

Once the data is received from [REDACTED], place it in the following folder, in the relevant year’s sub folder, creating a new folder if necessary:

GSSRPA\Branch 1\cars\Raw Car Data\

Now make a copy of the previous year’s car sampling folder:

[REDACTED]

Replacing the YYYY with the latest year.

Open the new folder and rename the files contained therein to reflect the new periods:

Car Data Cleaning File YYYY-3.xlsm

Car Data Cleaning File YYYY-2.xlsm

Car Data Cleaning File YYYY-1.xlsm

Car Sample Select YYY.xlsm

Where YYYY is the latest year

The Data cleaning files are used to combine the quarterly data provide by [REDACTED] into yearly data. There is one for each year that feeds into the used and new car sample frame.

Open the first-year cleaning file “Car Data Cleaning File YYYY-3.xlsm” and follow the steps in the spreadsheet. Step 1 is on the “Quarterly Raw Data” sheet and requires you to copy the first quarter of [REDACTED] data into this file. Now follow the remaining steps working through the worksheets from left to right. Some steps are repeated for each quarter. Be careful to delete

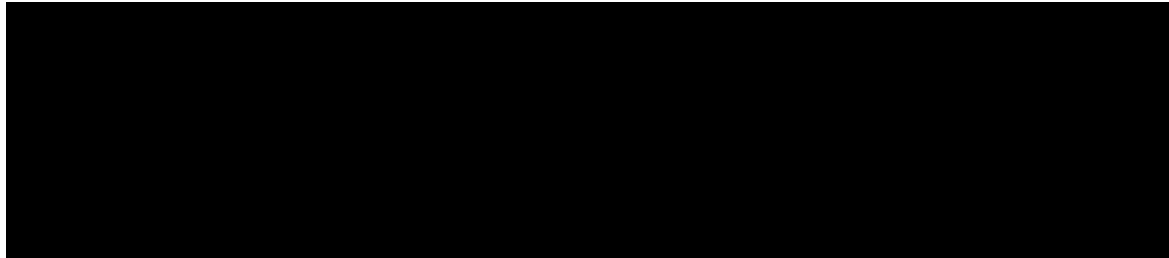
any pre-existing data in the spreadsheet left over from the last time the process was run. Also update years and dates in headings as you go.

Once the “Data cleaning files is complete for YYYY-3, repeat the process for years YYYY-2 and YYYY-2”

Once all “Data Cleaning” Files are constructed open the “Car Sample Select YYYY” sheet and paste the year data into the relevant sheets. Again, there are steps in the spreadsheet to guide you through this and the remaining process. Starting from the “-3 years” sheet and step 11 (not 1 because this is a continuation of the instructions in the data cleaning sheets) work through the sheets from left to right. As before, be careful to delete any data from the previous time this process was run and update date/headings as you go.

Once you have completed all the steps the new sample and weights should be available in the “Final New Car Sample” “and “Final New Car Sample” sheet, ready for copying into the “New” and “Used” car spreadsheets

For 2019, we identified that several cars were not distinct within the weights process. A macro was developed within the Car Data Cleaning File (Car Data Cleaning File [REDACTED]) to reapportion the following commonly purchased cars:



The macros also restricted the manufactured date to one year prior to the current dataset year – this removed a considerable number of older cars retained in the original [REDACTED] source dataset.

**Notes for Annual Review**

None at present.