

Advisory Panel on Prices - Technical Panel

10 July 2026



Agenda

Time	Item	Presenter & Paper	Description
9:30 – 9:35	Introductions, apologies, and actions	Grant Fitzner	Make introductions if necessary. Inform Panel members of any apologies. Update on outstanding actions.
9:35 – 9:55	An update on rail indices	Liam Greenhough and Mario Spina	Due to the sensitive nature of the information presented these slides will not be circulated in advanced or published following the meeting, they may be published at a later date.
9:55 – 10:15	Introducing hybrid and electric second-hand cars	Liam Greenhough	Research on including hybrid and electric second-hand cars into the basket of goods and services.
10:15 – 10:55	CPI Deep Dive: Telephone and telefax equipment and services	Amy Ditchfield	Research on how ONS can improve its telecommunication services measurement.
10:55 – 11:15	HPI workplan	Peter Gatabaki	Update on UK house price methodology review
11:15 - 11:25	Publication status of papers & AOB	Grant Fitzner	AOB •Review of Terms of Reference (Rifah)
11:25 – 11:30	Meeting close		

Actions from previous meeting

Action No.	Date captured	Description	Person Responsible	Status
25	Jul-25	Professor Smith to investigate the relationship between high price variance and high weight variance as part of his team's work.	Paul Smith	Ongoing
26	Apr-26	Secretariat to circulate panel travel reimbursement policy	Rifah Abdullah	Complete

REDACTED

An update on rail indices

Liam Greenhough and Mario Spina

Introducing hybrid and electric second-hand cars

Liam Greenhough

Second-hand cars

See registrations of **new** cars (right, RAC)

↓ Diesel

↑ Hybrid (HEV)

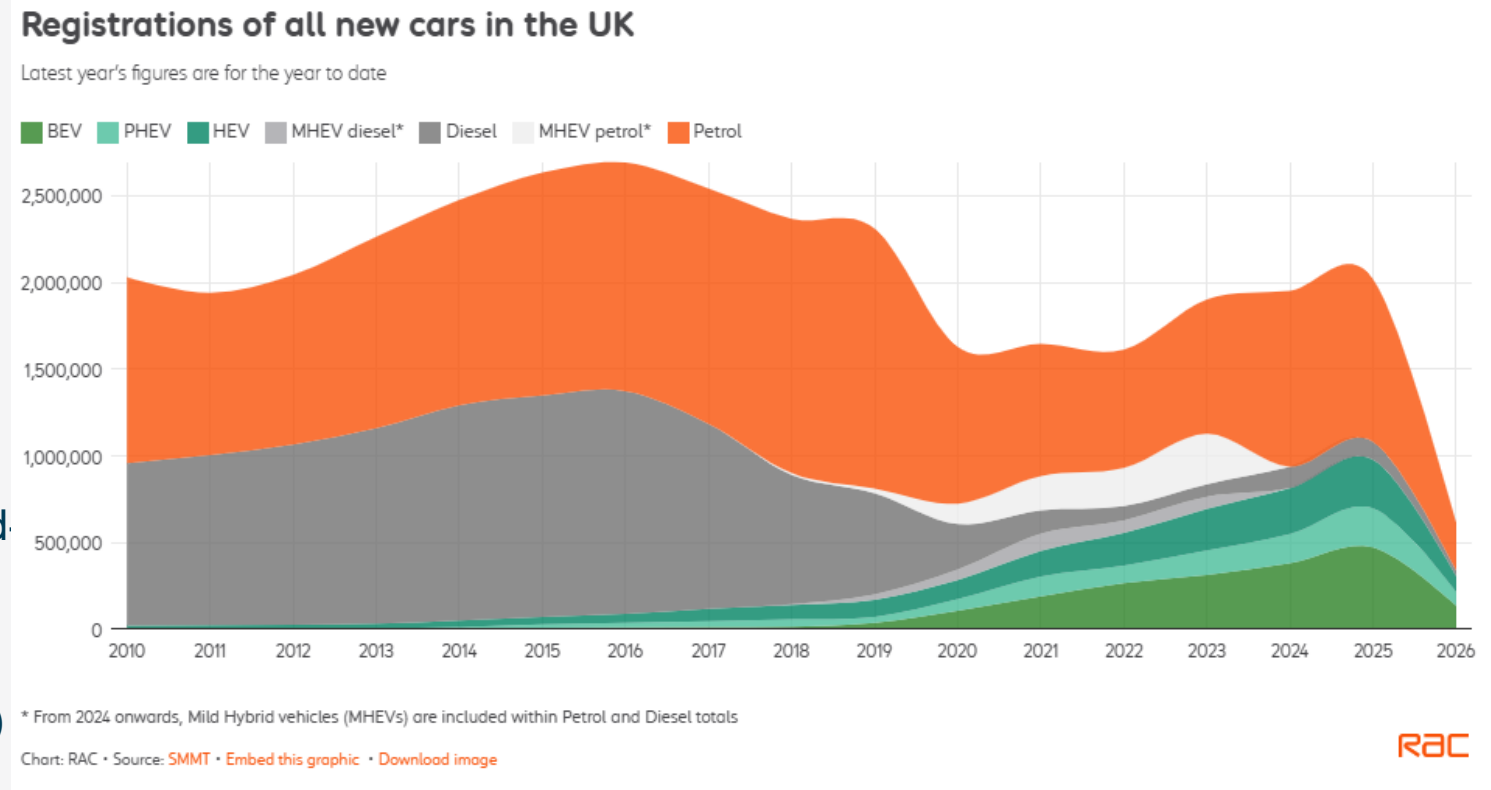
↑ Plug-in Hybrid (PHEV)

↑ Battery (BEV)

New petrol and diesel banned from 2030!

New cars changes will filter through to second-hand cars over time.

Goal: introduce hybrid and electric (by 2028?)



Current method

1) Define a stratum by its:

- Fuel type
- Age
- Make

2) In a stratum, calculate unit values for cars with the same:

- Model
- Mark
- Engine size
- Mileage bins
- Transmission
- Body type

3) Calculate the GEKS-T

Current method

1) Define a stratum by its:

- Fuel type
- Age
- Make

2) In a stratum, calculate unit values for cars with the same:

- Model
- Mark
- Engine size
- Mileage bins
- Transmission
- Body type

3) Calculate the GEKS-T

This approach has an inherent product definition trade-off:

- If too granular – lack of price matches for GEKS-T
- If too broad – risk of unit value bias

Works well with lots of data: can afford to be granular **and** still get matches!

But market fluctuations means more products and fewer observations per product – leading to match rate problems.

Electric is a particular problem: currently cannot create sufficiently homogeneous definition without degrading match rates too much.

Likely to cause problems with petrol and diesel as they phase out too.

Options

We will start a workstream to explore methods for "high churn" aggregates.

Looking for the panel's advice on preferred route to explore.

Potential options:

- Switching to the Time Dummy Hedonic
- Use imputation techniques along with the GEKS-T
- Others?

Dimensions of quality in a car

First choose which car you are going to buy through the:

- Make
- Model
- Mark (i.e. generation)

Pick some mandatory sub-options such as:

- Trim (i.e. package of features within generation)
- Engine/battery sub-options
- Transmission (manual vs automatic)

Then some optional “add-ons” such as:

- Cosmetics (cup holders, leather seats etc)
- Infotainment system upgrades
- Add-on technologies (e.g. parking sensors)

For second-hand cars there is also wear and tear:

- Age
- Mileage
- Service quality

Potential TDH Specifications

Option 1 – encapsulate key features within car dummy:

$$\log(p) = a + bD(model, mark, engine\ size, transmission) + c(mileage)$$

Option 2 – do not encapsulate key features within car dummy:

$$\log(p) = a + bD(model, mark) + c(engine\ size) + dD(transmission) + e(mileage)$$

Option 1 might be preferred to avoid collinearity (e.g. if all cars of a particular model and mark have the same engine, then the effect of the engine size may be implicitly captured within the model-mark dummy).

For example, for the current generation of petrol Vauxhall Corsas, there are “1.2L manual” and “1.2L automatic” variants. No other engine sizes are available!

Questions for the panel

- What are the panel's thoughts on the preferred method to explore to handle this “high churn” scenario, for introducing hybrid and electric cars?
- If using the Time Dummy Hedonic, what are the panel's preferences regarding model specifications?

REDACTED

CPI Deep Dive: Telephone and telefax equipment and services

Amy Ditchfield

Macroeconomic Insights

HPI workplan

Peter Gatabaki

Background

- UK House Price Index (UKHPI) launched in 2016, which is also used in the compilation of RPI
- Recent work has completed to re-platform UKHPI from SAS legacy to Python
- During uplift, methodological improvement introduced to reduce the downward revisions in UKHPI new build estimates
- Also, previous discussions at APCP-T which highlighted potential methods improvements for UKHPI

UKHPI Methods review

- UKHPI methods review to take place during 2026/27, with final report being presented in April 2027
- Review proposal to consider 4 separate work strands, which will be presented to subsequent Panel meetings
- Does the Panel agree with the following scope, and are there any further considerations?

Strand 1 – Regression model

- Description of work to be covered:
 - Assess performance of OLS v WLS. Recent development of PIPR suggested OLS more appropriate
 - Assess performance of running separate regression models for each country (as opposed to one model for GB)
 - Review model variables. Over a decade since current model was developed, are there any characteristics that can now be used to improve the model.

Strand 2 - Imputation

- Imputation used in both the annual update and monthly production.
 - Annual imputation uses CANCEIS, but possibly better options?
 - Interim improvements made to monthly imputation to reduce new build revisions, but APCP-T made suggestions for further investigation that need to be followed up

Strand 3 – New builds

- New build property the main cause of downward revisions in UKHPI due to limited transactions being available in early estimates (and subsequently missing property characteristics)
- This strand will review the challenges of new builds:
 - Review the modelling of property age/new build flag in regression model
 - Research potential bias adjustment strategies
 - Review monthly imputation methodology for new builds

Strand 4 – data sources

- This strand will review potential data sources that may now be available to improve the UKHPI. For example:
 - Make use of FCA mortgage data
 - Scottish Assessors attributes data
 - Any other source?

Publication status of papers & AOB

Publication status of papers & AOB

- Publication status of papers presented today
- Review of Terms of Reference (Rifah)
- Next panel meeting