By cap hp

April 2022

Future used car market overview

Welcome to the latest version of our overview. Our aim is to bring you the best content and layout, making it easy to identify new and revised information. As always, any customer feedback would be appreciated: e-mail dylan.setterfield@cap-hpi.com

The content is structured as follows:

- 1. Forecast Changes
- 2. Market Conditions
- 3. Historic Forecast Accuracy
- 4. Forecast Methodology & Products
- 5. Sector Reforecast Schedule 2022/23

1. Forecast changes

The overall average change in new car forecasts for ALL cars between March and April is approximately +0.36 % at 36/60, which is slightly favourable to the normal expectation of the seasonal change for full year forecasts at this time of year and partly reflects increase to the Upper Medium and Executive sectors at this month's reviews.

Details of all 36/60k forecast values revised by ±5% can be found via the following link: Monthly Reports

Sector reforecasts

This month, we publish new reforecasts for the Executive, Large Executive, Luxury Executive and Upper Medium sectors.

As we move through time, the first real impacts on the used car market of lower used car supply also get closer. We expect this to have an effect from around September 2023 onwards, which now falls between our one year and two year positions. As a result, we have applied changes to our deflation phasing, with a slight overall improvement for most sector/fuel combinations mainly influenced by improvements in years two and three, although Upper Medium sees improvements in the next 12 months and Luxury Executive deflation assumption is unchanged.

Unusually, there are only marginal differences between fuel types in each sector this month.



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Average forecasts movements are displayed in the table below.

SECTOR & FUEL TYPE	UNDERLYING FORECAST CHANGE	SEASONAL ELEMENT	OBSERVED CHANGE MARCH TO APRIL
Upper Medium Diesel Upper Medium Electric (BEV) Upper Medium Hybrid (HEV) Upper Medium Petrol Upper Med Plug-In Hybrid (PHEV)	2.1%	-0.6%	1.5%
	3.6%	-0.7%	2.9%
	3.8%	-0.7%	3.1%
	2.8%	-0.7%	2.1%
	3.4%	-0.7%	2.7%
Executive Diesel Executive Hybrid (HEV) Executive Petrol Executive Plug-In Hybrid (PHEV)	3.4%	0.7%	4.1%
	3.6%	0.7%	4.3%
	2.7%	0.7%	3.4%
	2.9%	0.7%	3.6%
Large Exec Diesel Large Exec Electric (BEV) Large Exec Hybrid (HEV) Large Exec Petrol Large Exec Plug-In Hybrid (PHEV)	2.2% 3.1% 2.6% 2.1% 2.3%	0.5% -0.4% -0.4% -0.4%	2.7% 2.7% 2.2% 1.7% 1.9%
Luxury Executive Petrol Overall Average	1.2%	-1.0%	0.2%
	2.6%	-0.1%	2.5%

Forecast changes this month

The number of Interproduct changes have decreased again this month, following the action already taken in previous months and the number of forecast changes made is now close to normal levels. Just over 50 ranges were considered, but in many cases, it was decided to make no changes to the forecasts.

In some of the examples below there were no further changes to the 36-month position, but increases were made to the 12-month position in recognition of further strength in used values that is not expected to be sustainable beyond the 12-month point. However, this month we also needed to make some negative adjustments on a small number of models which had either seen significant recent reductions in used values, or where previous increases were reversed as a result of revised or new data.



AUDI A5 CABRIOLET (19-) AUDI Q4 E-TRON ESTATE (21-) AUDI Q4 E-TRON SPORTBACK (21-) Electric LAND ROVER DEFENDER (19-) AUDI Q7 (19-)

AUDI S3 (20-)

JEEP COMPASS (17-)

BMW 4 SERIES CONVERTIBLE (20-)

BMW X2 (17-) Diesel BMW X2 (18-) BMW X7 (18-) BMW X7 (18-) Diesel FORD KUGA (19-) DIESEL JAGUAR E-PACE (17-) DIESEL KIA EV6 (21-) Electric LAMBORGHINI URUS (18-) LAND ROVER DEFENDER (19-) Diesel

MAZDA CX-5 (17-) MAZDA CX-5 (17-) DIESEL

MERCEDES-BENZ A CLASS (18-) DIESEL MERCEDES-BENZ GLA (20-) DIESEL

PEUGEOT 3008 (16-) SEAT LEON (20-) DIESEL

VOLKSWAGEN TIGUAN ALLSPACE (17-)

VOLVO XC40 (20-) Electric

Kia Niro (2019----) Premium PHEV over HEV increased from £1,050 to £1,350 at 36/60 following analysis of latest used value data in advance of the introduction of the new generation of this model.

Mercedes-Benz C-Class (2018-22) Premium for automatic transmissions increased from £575 to £700 at 36/60 following analysis of latest used value data trends.

Mercedes-Benz C-Class (2018-22) Diesel Premium for automatic transmissions increased from £575 to £750 at 36/60 following analysis of latest used value data trends.

Volkswagen California (2019----) Diesel Premium for Ocean trim increased from £3,850 to £5,650 at 36/60. This change has the effect of decreasing the forecast values for all trims below Ocean and Ocean forecast values are unchanged.



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Lower mileage limit changes

Following feedback from customers, we have amended our lower mileage limits to enable the production of forecasts at lower mileage to reflect the changes in driving habits as a result of the pandemic. The table below displays the changes, in thousands of miles, for each plate and duration combination. Care has been taken to ensure that these changes are balanced between allowing lower mileage forecast values and ensuring that we do not distort the linear interpolation between mileage points too severely.

	12	18	24	30	36	42	48	54	60	Plate Average
1717	-10	-10	-10	-10	-20	-20	-30	-30	-30	-19
1767	-10	-10	-10	-10	-25	-25	-30	-30	-30	-20
1867	-5	-5	-5	-5	-10	-10	-20	-20	-30	-12
1818	-5	-5	-10	-10	-10	-10	-20	-20	-30	-13
1868	-10	-10	-10	-10	-10	-10	-25	-25	-30	-16
1968	-5	-5	-5	-5	-5	-5	-10	-10	-20	-8
1919	-5	-5	-5	-5	-10	-10	-10	-10	-20	-9
1969	-5	-5	-5	-5	-10	-10	-10	-10	-20	-9
2069	0	0	-5	-5	-5	-5	-5	-5	-10	-4
2020	0	0	-5	-5	-5	-5	-10	-10	-10	-6
2070	0	0	-5	-5	-5	-5	-10	-10	-10	-6
2170	0	0	0	0	-5	-5	-5	-5	-5	-3
2121	0	0	0	0	-5	-5	-5	-5	-5	-3
2171	0	0	-5	-5	-5	-5	-5	-5	-10	-4
2271	0	0	-5	-5	-5	-5	-10	-10	-10	-6
Duration Average	-4	-4	-6	-6	-9	-9	-14	-14	-18	-9

Seasonality changes

In line with our gold book methodology, all other model ranges outside of the other changes listed above, have had their forecasts moved forward from month to month by seasonal factors which are differentiated by sector and fuel type and are based on analysis of historical used value movements.

2. Market changes

In last month's editorial, we talked about being in a 'holding period', but that reductions in used values were likely in the coming weeks and that several sectors of the market had become price sensitive, with higher value vehicles harder to sell. For some time, we had mentioned Easter as being a likely turning point if the market managed to stay stable until then. By the end of the first week in March, however, it was clear that these market adjustments had started a few weeks earlier than we had predicted.



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The reductions from the remarkable high point were inevitable: retail prices for many used cars remain priced above cost new and there are still cases where the trade value significantly exceeds list price. We expect the re-pricing of aged stock to continue and demand to continue to soften in the face of the cost of living squeeze. Our expectation for where the market will be in 12 months' time remains relatively unchanged, but the underlying reasons have changed somewhat: increases in used car volume are slightly delayed, but the immediate situation is dominated by weaker consumer demand.

Omicron case rates now appear to have peaked in the majority of countries in the Asia Pacific region, now reducing the likelihood of further short-term supply disruption. There are likely to be ongoing Covid-related impacts all across the supply chain for some time and global supply chains remain fragile. Semi-conductor leadtimes increased slightly as two earthquakes in Japan reduced production at Renesas and Toshiba, but remain largely stable overall. Further supply disruption seems inevitable and the timing of that disruption and location of the countries impacted is likely to be impossible to predict. Further variants seem inevitable, but we assume that existing vaccines will continue to be effective against them.

The horrific situation in the Ukraine is familiar to us all and the human cost far outweighs any business impact. However, it has resulted in a shortage of wiring harnesses, particularly for the German manufacturers, with several plants either closing or reducing shifts. BMW, Mini and Mercedes-Benz were all back to full production by 21st March, with Volkswagen Group to follow "soon". The continuing conflict is expected to have a lingering impact on production costs, precipitated by increased raw material prices and rising global energy markets.

In summary, our view is that:

- Despite the current increase in Covid-19 cases and hospitalisations, the UK government has clearly signalled that they will avoid another full lockdown at all costs and will continue to operate under as few restrictions as possible.
- The reductions in used values observed in March are expected to continue. Retail demand will continue to soften
 over the short term as the reality of the cost of living squeeze starts to make itself felt. Used car volumes will
 slowly increase as fleets start to receive replacements for long overdue vehicles. For most sectors, our short-term
 forecast now show negative movements for the next few months, but Convertible and Coupe-Cabriolets are
 expected to remain broadly flat for the next couple of months, with the positive effects of benign weather and
 seasonal factors offsetting the wider market movements.
- There are still plenty of cases where logical relationships have been broken and where nearly new used values are
 above list prices. These will resolve themselves in time, but values are not expected to go down as fast as they
 have increased. We expect retail demand to continue to reduce through 2022, principally fuelled by concerns over
 the rise in the cost of living. However, we still expect a gradual market adjustment over the next 12 months or so
 and not a 'mirrored' fall.
- The used value increases on some models have effectively set a new market and may not return to previous levels, but even in these cases we have tended to apply significant negative editorial adjustments during our Interproduct and sector reviews.
- The effects of the new car supply issues (including the semi-conductor shortage) are many and varied and seem to
 be changing every week. In many cases, the news from OEMs changes every time we have the discussion. In many
 cases there are derivative specific impacts within the same model, with complex decisions regarding production
 allocation being reviewed on a daily basis. There are multiple supply issues exacerbating the situation and
 predictions from individual brands for the next few months still vary considerably and some are changing on an
 almost weekly basis.
- A significant factor still contributing to lower levels of fleet returns is fleet managers and drivers running cars for longer, due to lower mileage during the pandemic. These cars will return to the used market at some stage and we



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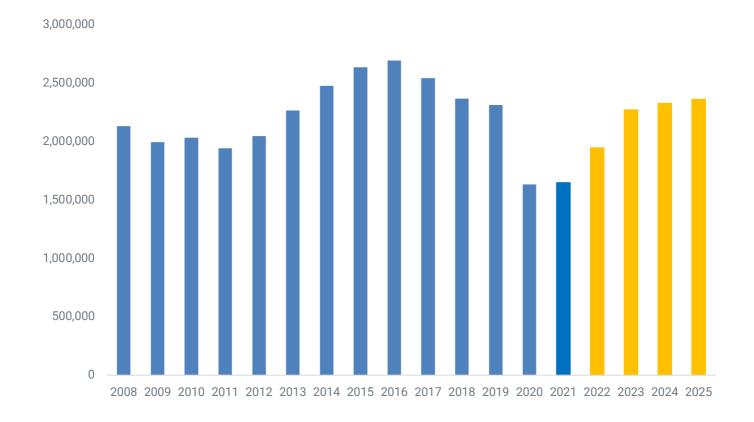
are factoring this into the phasing of our deflation assumptions for sector reviews. We have also altered our used car forecast mileage parameters to enable forecast values for lower mileage vehicles (more detail in used car forecast editorial).

- One-year-old vehicles will remain in relatively short supply for the foreseeable future and the longer the current new
 car supply issues persist, the longer there will be a shortage. However, once leadtimes for the majority of models
 reduce, it is expected that consumers will once again hold out for the new car. However, despite the prolonged
 shortages of nearly new stock, the trend for some time has been for 3-year-old cars outperforming the 1-year-old
 market and they have not increased by as large a proportion, therefore adjustments are expected to be slightly less
 than for 3-year-old cars once the market settles. This is reflected in our recent forecasts.
- After the expected low point of YOY% deflation towards the end of 2022, values will recover over the next couple of
 years as the economy and consumer confidence improves and used supply starts to reduce (helped significantly
 by the shortfall in new car registrations that we have been seeing since March 2020).

Supply side factors

The 2021 forecast for new car registrations from the SMMT started at 1.83 million reduced in July to 1.820mm and in October revised down to 1.66mm. Our forecast followed a similar trajectory. Final results were 1.65mm – down +1.0% higher than 2020 but -28.8% down on 2019. New car supply issues will continue to limit registrations in 2022, but our forecast for this year is an improvement to 1.95mm, although this remains -16% down on 2019 levels.

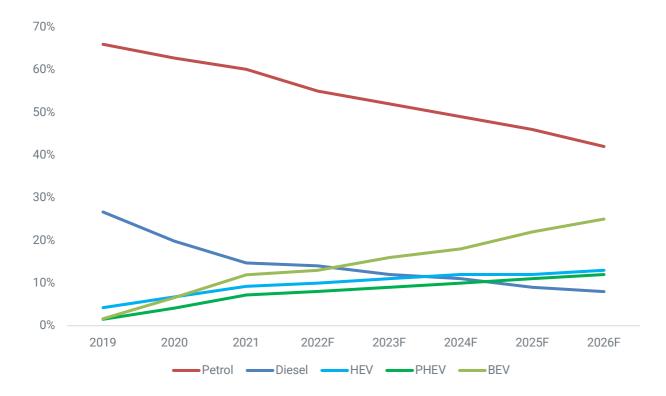
Our forecast for 2022 assumes a relatively strong recovery in the second half, although some supply issues are likely to linger. We expect that registrations will gradually increase to a level above 2.3 million registrations by 2024, but not reaching the peaks seen in 2016.





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The chart below shows our updated forecast market share split by fuel type. Petrol and diesel volumes include mild hybrids. The decline in diesel will continue but is likely to slow down since it will remain the right choice for a minority of drivers and use cases.



Growth will be led by battery electric vehicles (BEVs) which we expect to become the dominant AFV type towards the end of 2022. Post-Covid driving patterns (shorter and few journeys due to the increase of home working and online meetings) are likely to add to demand. The government's proposal to ban new ICE cars from 2030 will also be part of this increase, provided enough vehicle supply is made available and investment in charging infrastructure keeps pace with demand.

Demand side factors

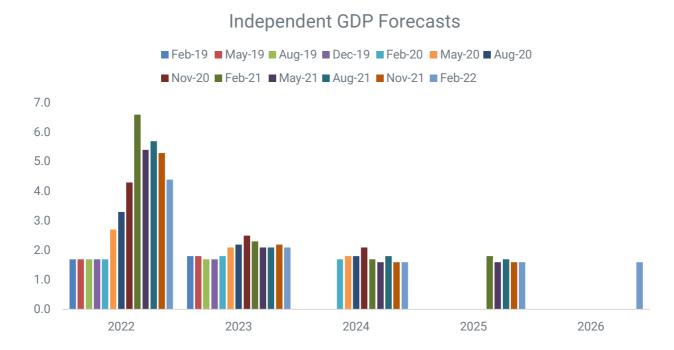
Latest independent forecasts for the UK economy were published on 16th February and showed a significant downgrade on the outlook for GDP for 2022 compared to November, from +5.3% to +4.4% (compared with OBR forecast of +3.8%). The Bank of England estimate is more conservative at +3.75%, but assumes deflation decreasing more quickly than the independent forecasts and being back below target by early in 2024. The 2023 independent estimate worsens slightly but longer-term GDP recovery remains unchanged, with GDP forecast flat at +1.6% for 2024/5/6.

The BoE view is now that there are "two-sided risks" in the medium term (previously they were "heavily skewed to the downside"). The outlook remains "uncertain", with their 'fan charts' as widely spaced as they have ever been.



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The chart below shows the latest GDP forecasts to 2025, alongside previous forecasts.



Unemployment has fallen relatively steeply in the past 12 months from 5.1% to 4.1% and the ending of furlough does not seem to have had a significant negative impact. The latest independent unemployment forecasts are basically flat for the next few years, but the Bank Of England show a gradual increase from current levels and close to prepandemic levels by 2024.

Inflation has now increased from 5.5% last month to 6.2% (compared to the original expected peak of 4.5% in 2022, although our expectation had been for it to be higher) and the BoE do not now expect it to come back below target until early 2024, whilst other forecasters think it will take longer. The recent increases have been driven by a combination of increased energy costs, everyday household goods, food and clothing, and current labour market imbalances, some of which are almost certainly short-term. Base rates increased by a further 25 basis points to 0.75% and are set to increase again in the near term, but are still forecast to remain low by historical standards. A significant proportion of consumers have built up considerable savings, but many will be cautious about their future economic stability and others have reduced financial circumstances as a result of the ongoing effects of the pandemic. The BoE's February survey still suggests that only 10% of accumulated savings will be spent and 75% of households do not intend to spend any at all.

3. Historic forecast accuracy

Since the introduction of gold book at the end of 2013, we have been able to track the accuracy of historic forecasts against current (black book) values. This tracking is longest for 12-month forecasts (tracked since January 2015) and shortest for 60-month forecasts (tracked since January 2019).

Overall, we are satisfied that accuracy results are generally been within the +/- 5% target agreed with customers but recognise that results were affected by the unexpected strength of petrol values, which started in 2017 as a result of anti-diesel press, but which fell away since late 2018, as we had always predicted. Diesel forecast accuracy has generally been within target, while petrol forecast accuracy fell outside of target during the period of strong values. In the past 12 months, our historic forecast accuracy was impacted by the strength of the used market after dealerships re-opened after the first COVID lockdown. The pausing of the market followed by significant strength on



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resumption (at a time when we would normally expect to see depreciation in each month) resulted in a significant short-term shift in accuracy.

Therefore, the tracking charts below all show the same general patterns, with the difference to target being less for 12-month forecasts (reforecast most recently); and being more for longer term forecasts (reforecast less recently).

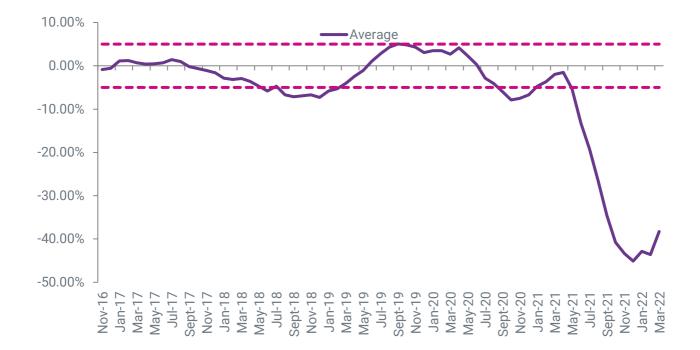
Clearly, the current unprecedented strength in the used car market is also resulting in further short-term deterioration in accuracy.

Details are shown below for 12 and 36 months, but all details are available on request.

12-month results

Since measurement started our 12 month used forecasts have averaged -4.9% less than used values across all vehicle ids, and the most recent results show March 2021 12/20 gold book forecasts being -38.3% less than March 2022 12/20 used values (unsurprising following record breaking used value increases in recent months).

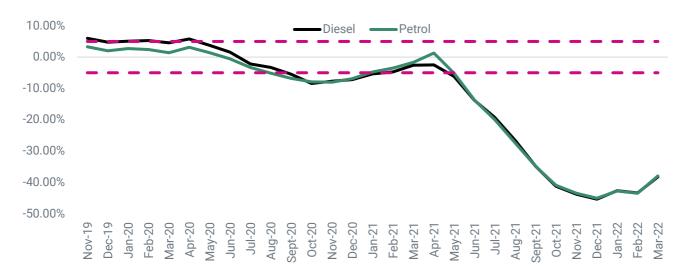
Overall results:



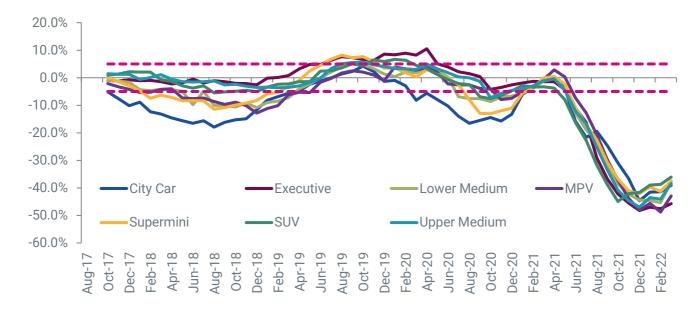


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Fuel type results



Sector results



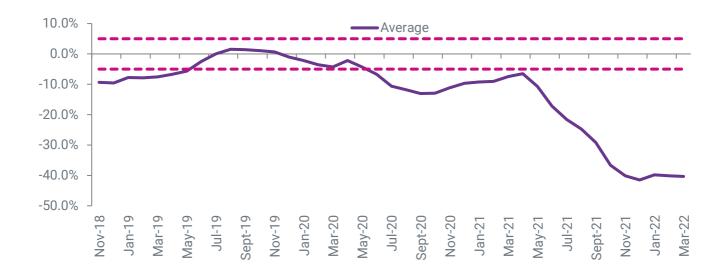
The most recent results for the main sectors are as follows:

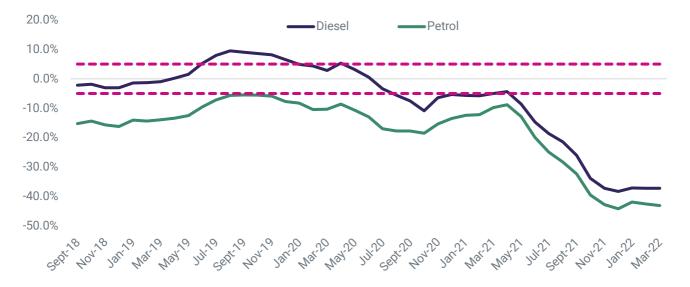
Feb 22	Average of Diff (%)
City Car	-39.1%
Executive	-45.8%
Lower Medium	-37.7%
MPV	-42.9%
Supermini	-37.5%
SUV	-36.1%
Upper Medium	-38.4%
Grand Total	-38.3%

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36-month results

Since measurement started our 36 month used forecasts have averaged -9.3% less than used values across all vehicle ids, and the most recent results show March 2019 36/60 gold book forecasts being -40.4% less than March 2022 36/60 used values.

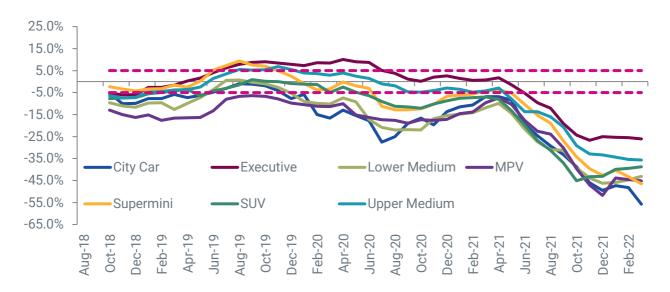






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Sector results



The most recent results for the main sectors are as follows:

Feb 22	Average of Diff (%)
City Car	-55.8%
Executive	-26.0%
Lower Medium	-43.1%
MPV	-45.1%
Supermini	-46.5%
SUV	-38.7%
Upper Medium	-35.7%
Grand Total	-40.4%

4. Forecast methodology and products

Overview and gold book iQ

Our values take current month used values as a starting point (uplifted for model changes where necessary), are moved forward according to age/sector/fuel specific year on year deflation assumptions regarding future used car price movements and are then subjected to additional adjustments by the Editorial Team. Finally, the values are moved forward by the next month's seasonality adjustments which are differentiated by sector and fuel type and are based on analysis of historical used value movements.

All these assumptions and adjustments are available for scrutiny to our customers through our gold book iQ product: complete transparency in automotive forecasting.

Changes may be actioned wherever there is reason to do so outside of the sector reforecast process and we continue our monthly inter-product analysis with our used value colleagues exactly as before.



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Short term forecast (0-12 months)

Our short-term forecast product, (covering 0-12 months) was launched in 2014. This is a live, researched product with a dedicated editor and filled a gap in our historical forecast coverage.

Forecast daily feed

In December 2017 we introduced a daily feed of forecasts for new models launched onto the market, so that customers do not have to wait until the next month to receive these forecasts.

Forecast output

Individual forecasts are provided in pounds and percentage of list price for periods of twelve to sixty months with mileage calculations up to 200,000. Each forecast is shown in grid format with specific time and mileage bands highlighted for ease of use.

All forecast values include VAT and relate to a cap hpi clean condition and in a desirable colour.

Parallel imports

Particular care must be taken when valuing parallel imports. Vehicles are often described as full UK specification when the reality is somewhat different. These vehicles should be inspected to ensure that the vehicle specification is correct for the UK. Parallel imports that are full UK specification and first registered in the UK can be valued the same as a UK-sourced vehicle.

Grey imports

cap hpi gold book does not include valuations for any grey import vehicles, (i.e., those not available on an official UK price list)



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5. Reforecast calendar 2022/23

We previously accelerated our calendar of sector reforecasts, to ensure that forecasts for all sectors incorporate the latest views of the future market in this fast-changing environment. The table below shows our revised future schedule of sector reforecasts:

Monthly Product	Sector 1	Sector 2	Sector 3	Sector 4
May-22	Lower Medium	MPV		
Jun-22	Convertible	Sports	Supercar	
Jul-22	SUV		·	
Aug-22	City Car	Supermini		
Sep-22	Upper Medium	Executive	Large Executive	Luxury Executive
Oct-22	Lower Medium	MPV		
Nov-22	Convertible	Coupe	Sports	Supercar
Dec-22	SUV	Cabriolet		
Jan-23	City Car			
Feb-23	Upper Medium	Supermini	Large Executive	Luxury Executive
Mar-23	Lower Medium	Executive		
Apr-23	Convertible	MPV Sports	Supercar	