

January 2021

Future used car market overview

Welcome to the latest version of our overview, previously known as the 'gold book used car editorial'. 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 on this new format would be appreciated: e-mail dylan.setterfield@cap-hpi.com

The content is structured as follows:

- 1. Headline Changes
- 2. Reforecast details for this month
- 3. Market conditions
- 4. Historic forecast accuracy
- 5. Forecast methodology
- 6. Sector reforecast schedule 2020-2021

1. <u>Headlines - key changes and additions to the overview this month</u>

Forecast changes

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

We have slightly improved our deflation assumption for 1 year into the future for Upper Medium as we expect it will be starting to recover from the downturn caused by Covid; but we have not changed the deflation assumptions for the other more expensive sectors as they will take a little longer to enter recovery.

See section 6 for a summary of our reforecast schedule.

Market Conditions Changes

At the time of writing (22nd December), there are still a lot unknowns that may affect our current view of the future used car market and used values either positively (tariffs on new car prices, successful Covid vaccine rollout, government job support schemes) or negatively (trade deals which may further depress the economy, delayed vaccine rollout, further spikes in Covid infection and prolonged lockdowns).

These may start to become clearer in coming months, but at present our view is unchanged and we predict that values will fall over the next year as consumer confidence falls and high volumes of used cars return to the market (driven by the expected return of extended fleet cars and an increase in the number of consumer PCP early terminations).

The Market Conditions Changes section of this editorial is therefore largely unchanged from last month.

Unemployment has now risen to 4.8% and CPI has also risen to 0.7%.

See section 3 for more details.



Historic Forecast Accuracy Changes

Our 12 month forecasts from 1 year ago have proved very accurate over the long term (only -0.5% less than current Black Book values on average), although in recent months they have started to look too low, though still within our -5% target. The pausing of the market followed by significant strength on resumption (at a time when we would normally expect to see depreciation in each month) has resulted in a significant short term shift in accuracy due to the unexpected arrival of Covid-19 and the resulting strength of the market in the short term.

Accuracy of older longer-term forecasts continues to be affected by the unexpected turbulence in used values over the last 2 to 3 years, caused by anti-diesel press boosting petrol values in particular to unsustainable levels, then followed by the market correction in early 2019, and now followed by the impact of Covid-19. The compound effect of all these factors has resulted in the older forecasts being too low. However, the older forecast results will improve over time, as the changes made in our 5-monthly sector reviews (which picked up the turbulent market movements) start to flow into the results.

See section 4 for more details on accuracy.

2. Reforecast details this month

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

Seasonality changes

In line with our gold book methodology, all other model ranges which are outside of the sector reforecasts, have had their used forecasts moved forward from month to month by seasonal factors (without plate effect) which are differentiated by sector and fuel type and are based on analysis of historical black book movements.

3. Market Conditions

At the time of writing (22nd December), there are still a lot unknowns that may affect our current view of the future used car market and used values either positively (tariffs on new car prices, successful Covid vaccine rollout, government job support schemes) or negatively (trade deals which may further depress the economy, delayed vaccine rollout, further spikes in Covid infection and prolonged lockdowns).

These may start to become clearer in coming months, but at present our view is unchanged and we still believe that the impact of the Covid19 pandemic on future car values will be as per our Base Case scenario put together in summer.

In summary, our view is that

- The used market strength seen in the period June to September 2020 will continue to ebb away over coming months, as the normal pattern of falling values in winter months is re-established.
- Values will fall to a low point after the middle of next year, driven by high volumes of used supply (especially the return of extended fleet cars, and an expected increase

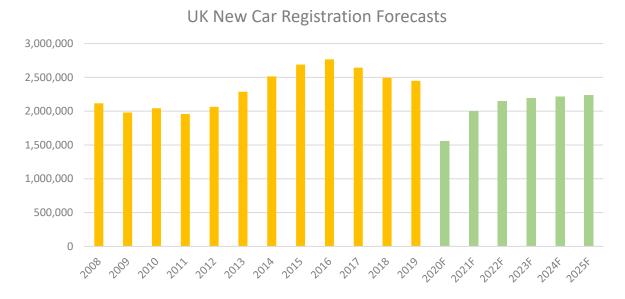


- in the number of early terminations of consumer PCP cars) coming back onto the market at a time when consumer confidence will still be low.
- One year old vehicles will be in relatively short supply at this time, and while this
 would normally help support their values, our view is that the dominant factor will be
 depressed consumer appetite for what will be a relatively expensive purchase.
 Therefore, their values will also be negatively impacted.
- After the low point, values will recover over the next couple of years as the economy
 and consumer confidence improves, and used supply start to reduce (helped by the
 shortfall in new car registrations that we are seeing now).

There will still be variations by sector and fuel type. We expect that smaller cheaper cars will be less impacted than larger expensive ones throughout the depressed period, as consumers remain prudent.

Supply side factors

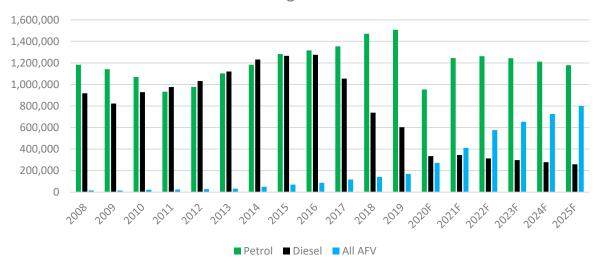
Forecasts for new car registrations in 2020 (1.56M), 2021 (2.0M) and 2022 (2.15M) were published by the SMMT in October and are included in the chart below. We have added our own forecasts for 2023 to 2025. Subject to the recovery of the economy, we expect that registrations will gradually improve to a level close to 2.2M registrations a year.



The chart below shows the forecast split by fuel type. Petrol and Diesel volumes include mild hybrids. The decline in diesel will continue but slow down since it will remain the right choice for some drivers. AFV includes Self Charging Hybrid, Plug In Hybrid and Battery Electric.

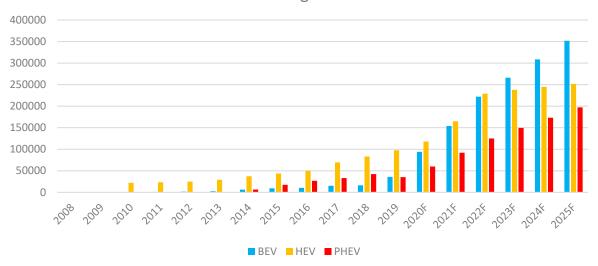


UK New Car Registration Forecasts



Forecasts for the different Alternative Fuel Vehicle (AFV) types are in the next chart. Growth will be led by battery electric vehicles (BEVs) which we expect to become the dominant AFV type. Post-Covid driving patterns (shorter and few journeys due to the increase of home working and online meetings) are likely to add to demand. However, if UK sales no longer count towards EU CAFÉ targets, manufacturers may restrict supply of BEVs to the UK.

Alternative Fuel Registration Forecasts

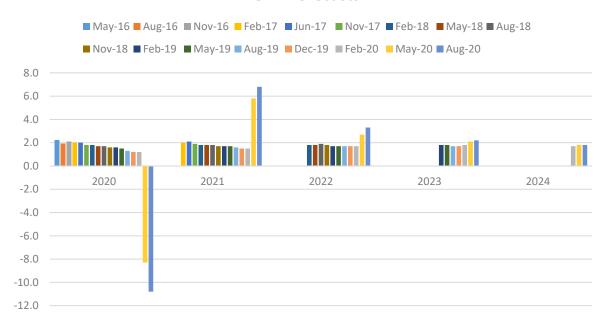


New independent forecasts for the UK economy were published in November and show a further worsening of forecasts for GDP and unemployment. Some of the UK GDP recovery has been deferred from 2021 to 2022.

The chart below shows the latest GDP forecasts for 2020-2024, alongside previous forecasts.



GDP Forecasts



The latest unemployment forecasts are slight worse than previously, with the unemployment expected to rise to between 6% and 8% next year; and then taking several years to return close to pre-Covid levels.

These new forecasts are broadly in line with the OBRs central economic scenario, and the latest view of the Bank of England.

Some good news is that inflation and the base rate are forecast to remain low, but our conclusion is that consumer confidence and willingness to pay for big ticket items such as replacement cars, will be hit due to the recession and unemployment.

In summary, our view is that

- Current used market strength will continue to ebb away over coming months, as pent-up demand for used cars is likely to have been satisfied and the normal pattern of falling values in winter months is re-established.
- Values will fall to a low point after the middle of next year, driven by high volumes of
 used supply (especially the return of extended fleet cars, and an expected increase
 in the number of early terminations of consumer PCP cars) coming back onto the
 market at a time when consumer confidence will still be low.
- One year old vehicles will be in relatively short supply at this time, and while this
 would normally help support their values, our view is that the dominant factor will be
 depressed consumer appetite for what will be a relatively expensive purchase.
 Therefore, their values will also be negatively impacted.
- After the low point, values will recover as the economy and consumer confidence improves, and used supply start to reduce (helped by the shortfall in new car registrations that we are seeing now).

There will still be variations by sector and fuel type. We expect that smaller cheaper cars will be less impacted than larger expensive ones throughout the depressed period, as consumers remain prudent.



4. 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).

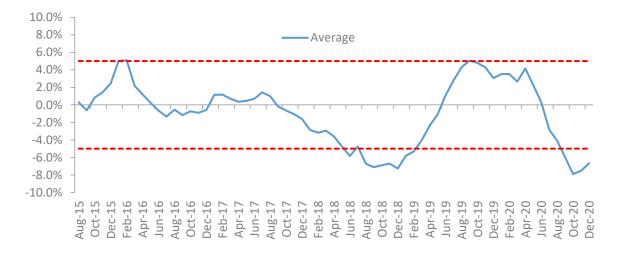
Overall we are satisfied that accuracy results have generally been within the +/- 5% target agreed with customers, but recognise that results have been affected by the unexpected strength of petrol values throughout 2017 and 2018 as a result of anti-diesel press; then the downturn in values during 2019 which we predicted; and now followed by the impact of COVID lockdown. The pausing of the market followed by significant strength on resumption (at a time when we would normally expect to see depreciation in each month) has resulted in a significant short term shift in accuracy. As a result, our used forecasts have tended to be more accurate on average for shorter terms than longer terms, where the impact of our regular sector reforecasts will take longer to flow into the accuracy results.

Overall, our used forecasts have proved to be on the high side for diesel, not because of a collapse in diesel values, but with hindsight our historic deflation assumptions were a little optimistic. The deflation assumptions we are using now for diesel are generally more conservative, while recognising that there are, and will be, fewer young diesels in the used market now than before.

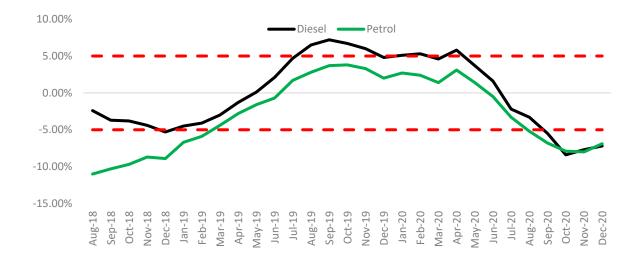
At sector level, City Car and Supermini have proved to be the most difficult to forecast, partly because variable manufacturer forced registration activity has impacted used values in an unpredictable way, and partly because of the positive impact on values caused by recent interest in small clean petrol cars.

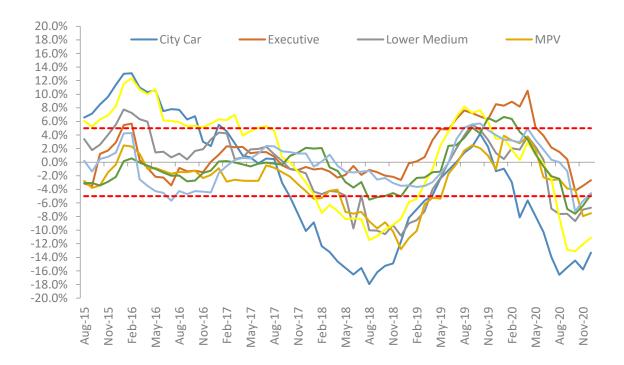
12 month results

Since measurement started our 12 month used forecasts have averaged -0.8% less than black book across all vehicle ids, and the most recent results show December 2019 12/20 gold book forecasts being -6.7% less than December 2020 12/20 black book.







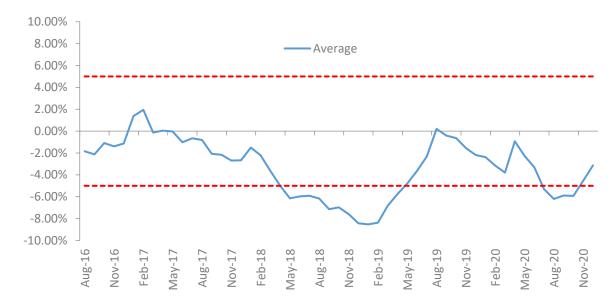




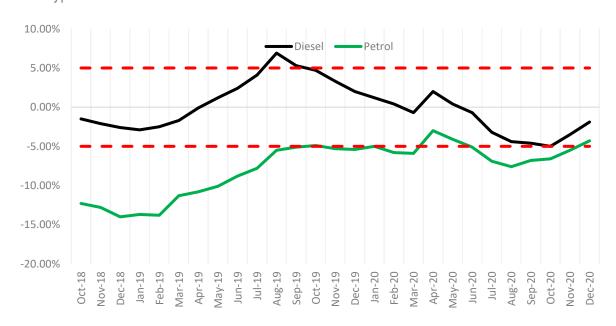
Row Labels	Average of GB Diff (%)
City Car	-13.3%
Executive	-2.6%
Lower Medium MPV	-6.7% -7.5%
Supermini	-11.1%
SUV	-4.7%
Upper Medium	-4.5%
Grand Total	-6.68%

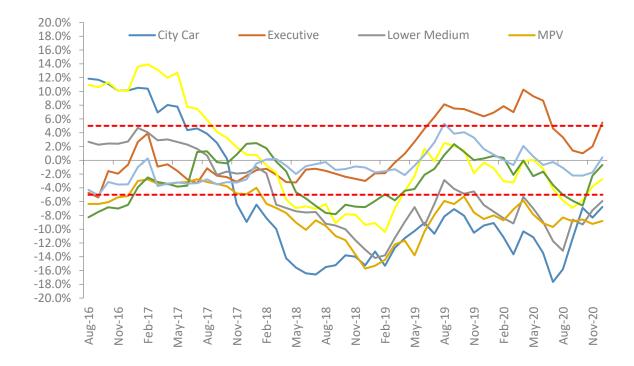
24 month results

Since measurement started our 24 month used forecasts have averaged -3.0% less than black book across all vehicle ids, and the most recent results show December 2018 24/40 gold book forecasts being -3.1% less than December 2020 24/40 black book.







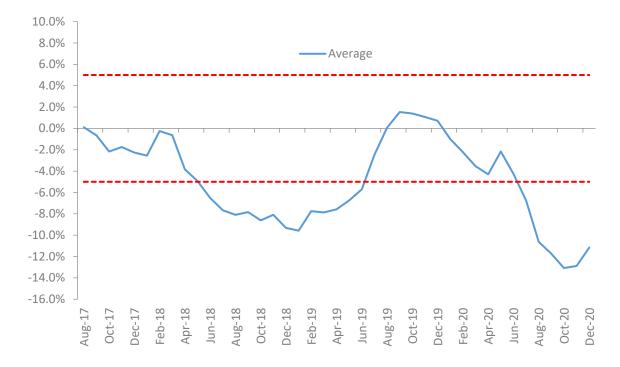




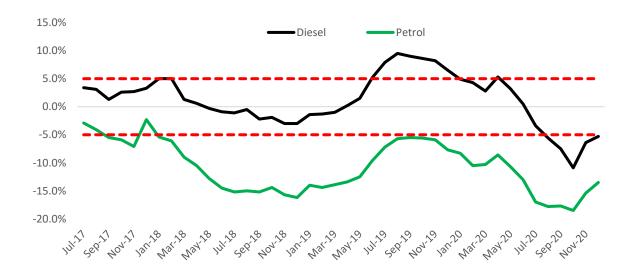
Row Labels	Average of GB Diff (%)
City Car	-6.8%
Executive	5.5%
Lower Medium	-5.9%
MPV	-8.8%
Supermini	-2.7%
SUV Upper	-0.7%
Medium	0.4%
Grand Total	-3.13%

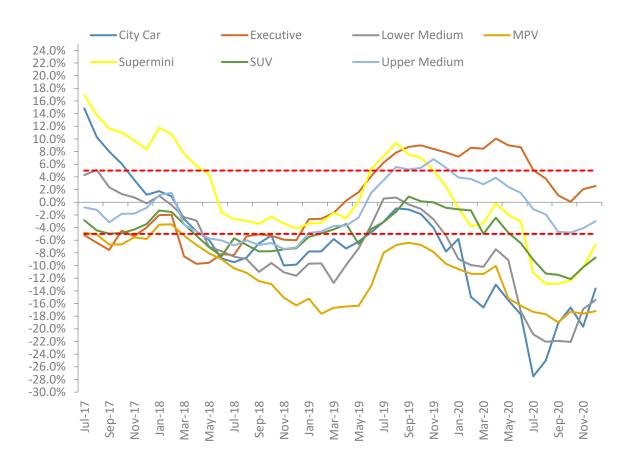
36 month results

Since measurement started our 36 month used forecasts have averaged -4.5% less than black book across all vehicle ids, and the most recent results show December 2017 36/60 gold book forecasts being -11.2% less than December 2020 36/60 black book.







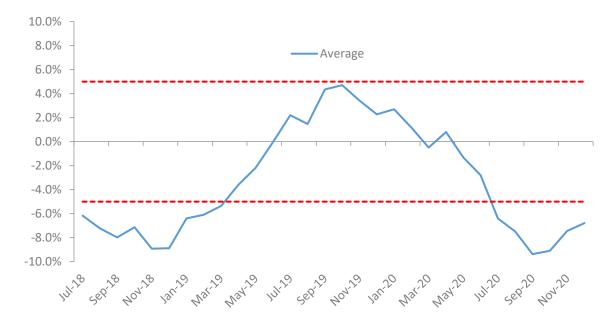




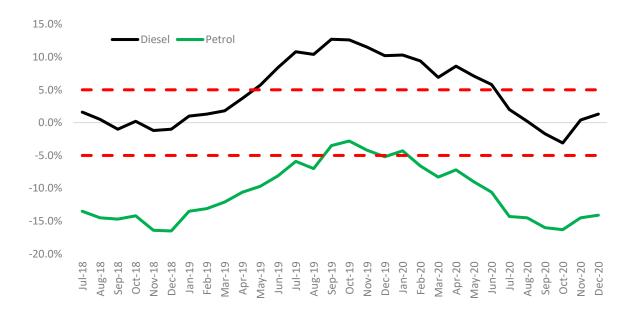
Row Labels	Average of GB Diff (%)
City Car	-13.6%
Executive	2.6%
Lower	
Medium	-15.4%
MPV	-17.2%
Supermini	-6.7%
SUV	-8.7%
Upper	
Medium	-3.0%
Grand Total	-9.6%

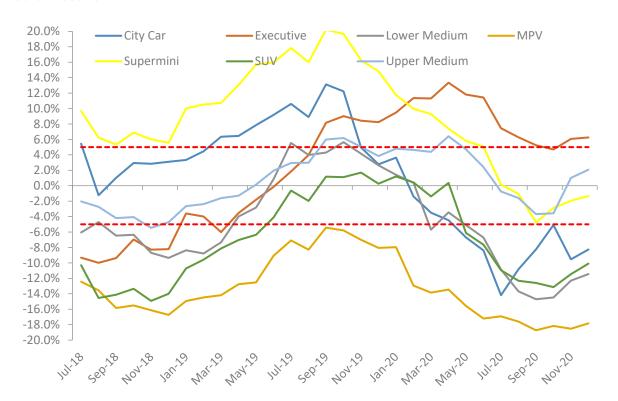
48 month results

Since measurement started our 48 month used forecasts have averaged -3.3% less than black book across all vehicle ids, and the most recent results show December 2016 48/80 gold book forecasts being -6.8% less than December 2020 48/80 black book.







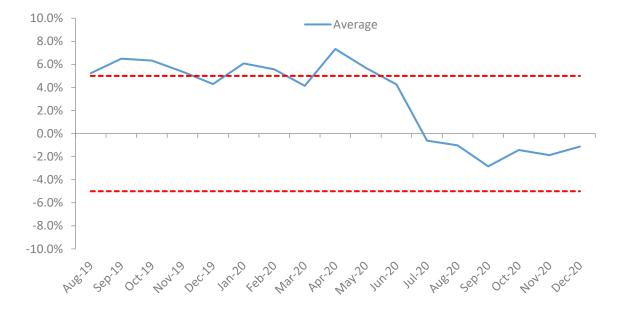




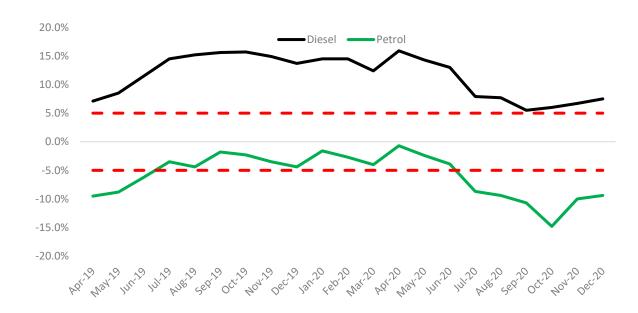
Row Labels	Average of GB Diff (%)
City Car	-8.3%
Executive	6.3%
Lower Medium	-11.4%
MPV	-17.8%
Supermini	-1.3%
SUV	-10.1%
Upper Medium	2.1%
Grand Total	-6.8%

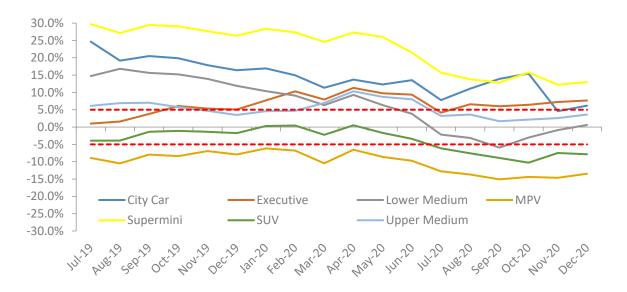
60 month results

Since measurement started our 60 month used forecasts have averaged 1.9% more than black book across all vehicle ids, and the most recent results show December 2015 60/100 gold book forecasts being -1.1% more than December 2020 60/100 black book.











Row Labels	Average of GB Diff (%)
City Car	6.2%
Executive	7.7%
Lower Medium	0.6%
MPV	-13.5%
Supermini	13.0%
SUV	-7.8%
Upper Medium	3.6%
Grand Total	-1.1%

5. Gold Book Methodology:

Overview

All of our future residual values are based on the gold book methodology. Our values take current month black book 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 black book movements.

All of these assumptions and adjustments are available for scrutiny to our customers through our gold book iQ product. For years our customers have been asking for transparency in automotive forecasting and we have delivered a ground-breaking product to provide exactly that.

With an increasing number of customers subscribing to gold book iQ, we are entering into a range of debates and discussions around both our overall forecasting methodology and individual elements of the forecasts for particular vehicles. This is expected to evolve over time into a 'virtuous circle', with the feedback looping back into the forecast process and delivering continuous improvement. We are embracing a new era of customer communication, with a greatly improved quality of interaction and debate around our forecast values.

Changes may be actioned wherever there is reason to do so outside of the sector reforecast process and we continue our monthly Interproduct analysis with our black book colleagues exactly as before. This has intensified following the availability of our short term forecast data (gold book 0-12, now available to customers), which incorporates detailed exception reporting at a cap hpi ID level and will also be used increasingly going forward to manage the relationships between black book and gold book.



Forecasting Model Development - gold book & iQ

gold book iQ was launched in December 2013 and gives unparalleled transparent insight into the assumptions used to produce our forecasts.

Our short-term forecast product, gold book 0-12, (also marketed as black book +12) was launched shortly afterwards. This is a live, researched product with a dedicated editor and fills a gap in our previous forecast coverage.

Following feedback on our gold book iQ product, from September 2016 we have added more detail into the commentary for each model range reforecast in sector reviews.

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.

All new car prices in gold book include VAT and delivery.

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).



6. Reforecast Calendar 2020-2021:

The table below shows the cycle of sector reforecasts completed so far in 2020

Monthly Product	Sector 1	Sector 2	Sector 3	Sector 4
Jan-20 Feb-20	City Car SUV	Supermini Electric		
Mar-20	Upper Medium	Executive	Large Executive	Luxury Executive
Apr-20 May-20	MPV No Sectors	Convertible	Coupe Cabriolet	
Jun-20	No Sectors			
Jul-20	No Sectors			
Aug-20 Sept-20	All Sectors No Sectors			
Oct-20	No Sectors			
Nov-20	SUV		EL L	
Dec-20 Jan-21	City Car Upper Medium	Supermini Executive	Electric Large Executive	Luxury Executive

The table below shows our expected future cycle of sector reforecasts. February will be Convertible, Coupe Cabriolet, Sports and Supercar sectors. We will confirm the sectors for March onwards as soon as possible.

Monthly Product	Sector 1	Sector 2	Sector 3	Sector 4
Jan-21 Feb-21 Mar-21	Lower Medium Convertible tbc	MPV Coupe Cabriolet tbc	Sports tbc	Supercar tbc