

July 2021

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 on this format 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
- 5. Sector Reforecast Schedule 2021

1. Forecast Changes

No sector reforecasts this month

The overall average change in new car forecasts for ALL cars between June and July is approximately +1.59 % at 36/60, which is approximately 2.47% higher than the normal expectation of the seasonal change for full year forecasts at this time of year. This is because we have completed extensive Interproduct reviews for the most extreme relationships between current used values and our forecast positions (see below).

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

CITROEN C4 (2016 ----) DIESEL Reforecast following future trends analysis, resulting in forecast increases.

CITROEN GRAND C4 SPACETOURER (2018 ----) Reforecast following future trends analysis, resulting in forecast increases.

CITROEN GRAND C4 SPACETOURER (2018 ----) DIESEL Reforecast following future trends analysis, resulting in forecast increases.

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 used value movements.



Forecast changes this month (no sector reforecasts this month)

The following ranges were all reforecast as part of our Interproduct reporting, with the greatest exceptions in each sector being reconsidered. In several sectors we were only able to look at ranges where the 1 year used value was more than 20% above our forecast position following the recent record-breaking increases in used values. Further Interproduct reviews will continue in tandem with the scheduled sector reviews from next month.

AUDI A4 (19-) AUDI A4 (19-) DIESEL AUDI A5 COUPE (19-) AUDI A5 COUPE (19-) DIESEL AUDI A5 SPORTBACK (19-) AUDI A5 SPORTBACK (19-) DIESEL AUDI Q5 (16-) AUDI Q5 (16-) DIESEL BMW 2 SERIES ACTIVE TOURER (14-) BMW 2 SERIES ACTIVE TOURER (14-) DIESEL BMW 2 SERIES ACTIVE TOURER (15-) HYBRID BMW 2 SERIES CONVERTIBLE (14-) BMW 2 SERIES COUPE (13-) BMW 2 SERIES GRAN TOURER (15-) BMW 2 SERIES GRAN TOURER (15-) DIESEL BMW 3 SERIES (18-) BMW 3 SERIES (18-) DIESEL BMW 4 SERIES COUPE (20-) BMW 4 SERIES COUPE (20-) DIESEL BMW 4 SERIES GRAN COUPE (14-) BMW 5 SERIES (16-) BMW 5 SERIES (16-) DIESEL BMW MINI CONVERTIBLE (18-) BMW MINI COOPER (18-) BMW MINI COOPER S (18-) BMW MINI COUNTRYMAN (17-) BMW MINI COUNTRYMAN (17-) DIESEL BMW X1 (19-) BMW X2 (17-) Diesel BMW X2 (18-)

BMW X3 (17-) DIESEL BMW X5 (18-) BMW X5 (18-) DIESEL BMW X5 (19-) HYBRID BMW Z4 ROADSTER (18-) CITROEN C1 (14-) CITROEN C3 (16-) CITROEN SPACE TOURER (16-) DIESEL DACIA LOGAN (13-) DACIA SANDERO (13-) DACIA SANDERO (13-20) DIESEL FIAT 500 (15-) FIAT PANDA (12-) FIAT TIPO (16-) FORD GALAXY (19-) DIESEL FORD MONDEO (18-) DIESEL FORD MUSTANG CONVERTIBLE (15-) FORD S-MAX (19-) DIESEL HONDA CIVIC (16-) HONDA CR-V (18-) HYBRID HYUNDAI TUCSON (18-) JAGUAR XE (19-) JAGUAR XE (19-) DIESEL JAGUAR XF (15-) DIESEL KIA NIRO (19-) KIA PICANTO (17-) KIA RIO (16-) KIA SPORTAGE (15-) DIESEL MERC A CLASS (18-) DIESEL MERC C CLASS (18-)

MERC C CLASS (19-) DIESEL HYBRID MERC C CLASS (20-) PETROL HYBRID MERC C CLASS COUPE (18-) MERC C CLASS COUPE (18-) DIESEL MERC E CLASS (16-) DIESEL MERC E CLASS (18-) DIESEL HYBRID MERC E CLASS COUPE (16-) MERC E CLASS COUPE (16-) DIESEL MERC GLA CLASS (20-1) MERC GLA CLASS (20-) DIESEL MERC S CLASS (20-) DIESEL MERCEDES-BENZ C CLASS CABRIOLET (18-) MERCEDES-BENZ E CLASS (16-) HYBRID MERCEDES-BENZ GLC (20-) DIESEL HYBRID MERCEDES-BENZ GLC (20-) HYBRID MERCEDES-BENZ GLC CLASS (19-) MERCEDES-BENZ GLC CLASS (19-) DIESEL MG MOTOR UK MG 5 (20-) ELECTRIC MG MOTOR UK ZS (17-) MITSUBISHI ECLIPSE (17-) NISSAN MICRA (16-) NISSAN QASHQAI (18-) PEUGEOT 108 (14-) PEUGEOT 3008 (16-) PEUGEOT 3008 (16-) DIESEL PORSCHE BOXSTER (16-) PORSCHE MACAN (18-) SEAT ARONA (17-) SEAT ATECA (16-) SEAT ATECA (16-) DIESEL

SKODA KAROQ (17-) SKODA KAROQ (17-) DIESEL SSANGYONG TIVOLI (19-) SSANGYONG TIVOLI (19-) DIESEL SUZUKI S CROSS (13-) SUZUKI SWIFT (17-) SUZUKI VITARA (18-) TESLA MODEL 3 TOYOTA AYGO (18-) TOYOTA YARIS GR (20-) VAUXHALL GRANDLAND X (17-) VOLKSWAGEN PASSAT (19-) DIESEL VOLKSWAGEN TIGUAN (16-) VOLKSWAGEN TIGUAN (16-) DIESEL VOLKSWAGEN T-ROC (17-) VOLKSWAGEN T-ROC (17-) DIESEL VOLKSWAGEN UP (12-) VOLVO \$90/V90 (16-) DIESEL VOLVO S90/V90 (17-) VOLVO S90/V90 (17-) HYBRID VOIVO V60 (18-1 VOLVO V60 (18-) DIESEL VOLVO XC40 (17-) VOLVO XC40 (19-) HYBRID VOLVO XC60 (17-) VOLVO XC60 (17-) DIESEL VOLVO XC90 (14-) DIESEL VOLVO XC90 (14-) HYBRID VOLVO XC90 (15-)

2. Market Conditions

Dealerships physically re-opened on April 12th and although the initial few days of opening brought mixed feedback, demand swiftly accelerated and has resulted in record breaking increases in used values in recent weeks. Several supply issues have extended new car delivery lead times and a combination of fewer trade-in vehicles and delayed fleet replacements have contributed to this record strength, as many drivers and fleet managers are running cars for longer due to lower mileage through the pandemic. The extension of the government's additional support for business has delayed the anticipated negative economic impacts and further lockdowns now seem unlikely, although concerns remain regarding new variants.

In summary, our view is that:

- Although we expected the current strength in the used market to last for several
 weeks, the magnitude of the increases has been hard to comprehend and is certainly
 not sustainable. Our short-term forecast continues to show positive movements in
 each of the next 3 months of decreasing magnitude, but a market correction at some
 stage appears to be inevitable.
- There are already 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. Clearly this may be accelerated if the pent-up demand becomes satisfied and consumer attention moves towards other areas such as holidays. Even is this case, however, we

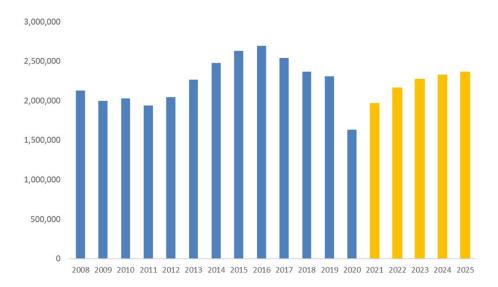


- would still expect a gradual market adjustment over the next 12 months or so, rather than a 'mirrored' fall.
- The used value increases on some models have effectively set a new market and may not return to previous levels, but even in these cases we have tended to apply significant negative editorial adjustments during our Interproduct review this month. Many dealers have not increased prices on aged stock and the current 'two tier' retail market on many models makes it very challenging to determine how sustainable values are likely to be.
- The effects of the semi-conductor shortage are many and varied, with some OEMs expecting peak issues in Q3, others expecting normality by then and some not expecting any significant impact. 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 also several other supply issues exacerbating the situation and predictions from individual brands for the remainder of the year vary considerably.
- The most significant factor currently contributing to slightly lower levels of fleet returns is still 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 will be factoring this into the phasing of our next round of deflation assumptions for sector reviews.
- One-year-old vehicles will remain in relatively short supply for the foreseeable future, 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. However, 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 and therefore adjustments are expected to be slightly less than for 3year-old cars once the market settles.
- After the low point, values will recover over the next couple of years as the economy and consumer confidence improves, and used supply starts to reduce (helped by the shortfall in new car registrations that we are seeing now).

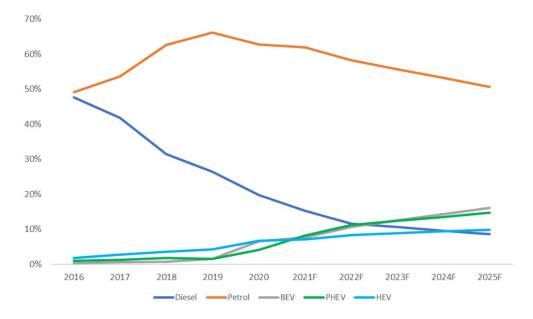
There will still be variations by sector and fuel type. Convertibles are expected to fall by more than seasonal averages once we head towards winter, as dealer demand turns to other vehicles. Similarly, many Sports models have increased by so much that any softening of consumer demand is likely to result in decreases in used values by more than the market average.

Supply side factors

New forecast for new car registrations from the SMMT was updated in March to 1.83mm. The chart below displays our own latest forecasts: 2021 1.902mm, 2022 2.162mm, 2023 2.270. Our forecast was revised down from 1.965mm once it was clear that dealerships would not be opening during March and remains under review, but the 12 month rolling total in May increased to 1.847mm and therefore remains on track to meet our estimate. Subject to the recovery of the economy, we expect that registrations will gradually increase to a level above 2.3M registrations a year, but not reaching the peaks seen in 2016.



The chart below shows the forecast market share 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 a minority of drivers.



Growth will be led by battery electric vehicles (BEVs) which we expect to become the dominant AFV type by 2023. 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 keep pace with demand.

Demand side factors

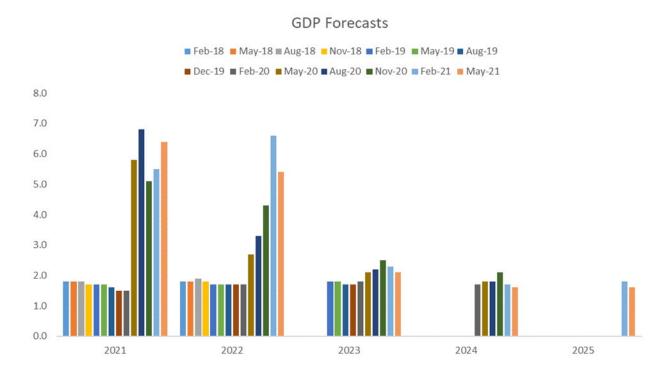
Latest independent forecasts for the UK economy were published in May and show some improvement to forecasts for GDP, but with the average of +6.4% (vs. 5.5% in February) remaining below the Bank of England estimate of +7.5%. The increases in 2021 also reflect the fall in 2020 being greater than originally estimated (and continuing into early 2021). The 2022



estimate reduces from +6.6% to +5.4% and longer term GDP recovery remains subdued with further reductions from 2023 to 2025.

Despite the forecast increase in GDP for 2021, the BoE stated view is that the risks in the short term are "heavily skewed to the downside" and the outlook remains "uncertain", with their 'fan charts' as widely spaced as they have ever been.

The chart below shows the latest GDP forecasts for 2020-2025 and previous forecasts.



The latest unemployment forecasts show a longer but flatter curve, with unemployment expected to peak at 5.4% over the next two years (rather than peaking this year); then taking several years to return close to pre-Covid-19 levels. This clearly reflects the impact of the extension to the government measures to support businesses in general and the furlough scheme in particular.

Inflation is set to peak at 3.1% in 2022 with many and varied temporary/transitional impacts, including the reversal of the VAT cut for the hospitality industry in September, increasing input costs for businesses and volatility in oil and gas prices. Base rates are forecast to remain low, but our conclusion is that consumer confidence and willingness to pay for big ticket items such as replacement cars, may be limited in the medium term due to the reduced growth and increased unemployment. 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 pandemic. The BoE's surveys suggest 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 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).

Cleary, the current unprecedented strength in the used car market will also result in further short-term deterioration in accuracy.

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



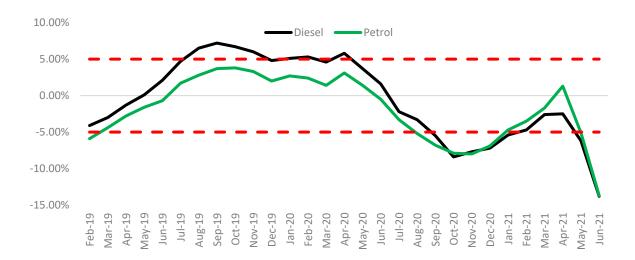
12-month results

Since measurement started our 12 month used forecasts have averaged -1.1% less than used values across all vehicle ids, and the most recent results show June 2020 12/20 gold book forecasts being -13.3% less than June 2021 12/20 used values.

Overall results:

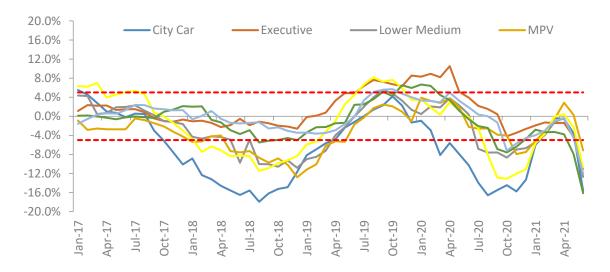


Fuel Type Results:





Sector Results:



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

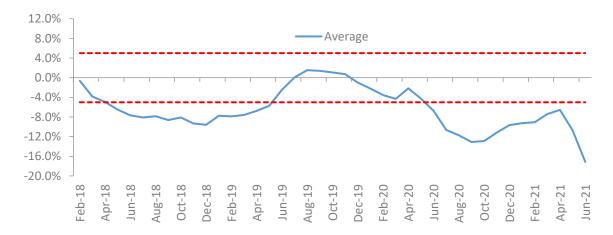
June 21	Average of Diff (%)		
City Car	-15.7%		
Executive	-11.0%		
Lower Medium	-12.7%		
MPV	-7.2%		
Supermini	-10.8%		
SUV	-16.1%		
Upper Medium	-12.0%		



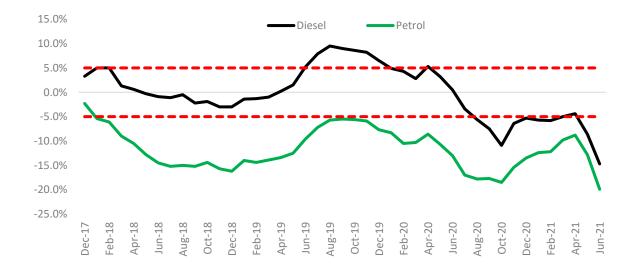
36-month results

Since measurement started our 36 month used forecasts have averaged -4.9% less than used values across all vehicle ids, and the most recent results show June 2018 36/60 gold book forecasts being -17.1% less than June 2021 36/60 used values.

Overall Results:

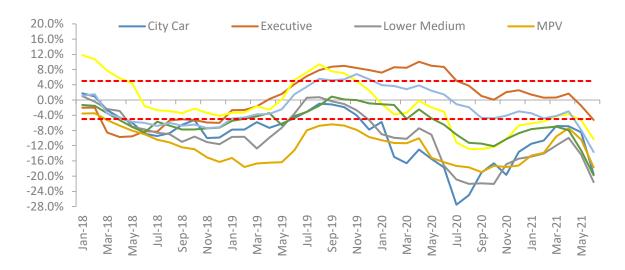


Fuel Type Results:





Sector Results:



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

June 21	Average of Diff (%)
City Car	-19.4%
Executive	-5.3%
Lower Medium	-21.6%
MPV	-17.7%
Supermini	-10.3%
SUV	-19.8%
Upper Medium	-13.7%

Grand Total	-17.1%
--------------------	--------

4. Forecast Methodology & Products

Overview & 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.

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.

All new car prices in forecast data 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).



5. Reforecast Calendar 2021/22

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	Sector 5	Sector 6
Aug-21	Small SUV					
Sep-21	Medium SUV	Large SUV				
Oct-21	City Car	Supermini				
Nov-21	Upper Medium	Executive	Large Executive	Luxury Executive		
Dec-21	Lower Medium	MPV		,		
Jan-22	Convertible	Coupe Cabriolet	Sports	Supercar		
Feb-22	SUV					
Mar-22	City Car	Supermini				
Apr-22	Upper Medium	Executive	Large Executive			
May-22	Lower Medium	MPV	-			
Jun-22	Convertible	Sports	Supercar			
Jul-22	SUV					