

September 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

The overall average change in new car forecasts for ALL cars between August and September is approximately +4.1 % at 36/60, which is approximately +1.7% higher than the normal expectation of the seasonal change for full year forecasts at this time of year. This is a reflection of the impact of the significant amount of IDs included in the Medium and Large SUV sector review and the increases in forecast values for those vehicles (see below).

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

Sector reforecasts

This month, we publish new reforecasts for the Medium and Large SUV sectors. (As mentioned previously, Electric Vehicles are now reforecast in conjunction with their associated body style sectors).

As our forecast window moves further into the future and out of the worst of the impacts of the pandemic, we have been making significant improvements to our deflation assumptions. However, similar to the Small SUVs last month, the recent extreme increases in used values have prompted us to increase the deflation expectation over the next 12 months, as the strength seen this year is not expected to be repeated.

Medium and Large SUVs see an improvement of approximately +3.6% and +3.8% respectively for 3-year-old vehicles in the first year with increases of a similar magnitude at other ages, although some Medium SUV models have seen slightly greater increases at 12 months where the most recent increases in used values rendered the 12 month position unrealistic.

Diesels have increased by more than Petrol, with Hybrid, PHEVs and BEVs also increasing by smaller amounts.

The overall impact of the changes to forecasts for this sector at 36/60k is shown below:

SIZE & FUEL TYPE	UNDERLYING FORECAST CHANGE	SEASONAL ELEMENT	OBSERVED CHANGE AUGUST TO SEPTEMBER
Medium SUV Diesel	4.9%	2.4%	7.3%
Medium SUV Electric (BEV)	2.0%	2.4%	4.4%
Medium SUV Hybrid (HEV)	2.9%	2.4%	5.3%
Medium SUV Petrol	4.2%	2.4%	6.6%
Medium SUV Plug-In Hybrid (PHEV)	2.9%	2.4%	5.3%
Large SUV Diesel	4.2%	2.4%	6.6%
Large SUV Electric (BEV)	0.3%	2.4%	2.7%
Large SUV Hybrid (HEV)	3.8%	2.4%	6.2%
Large SUV Petrol	2.6%	2.4%	5.0%
Large SUV Plug-In Hybrid (PHEV)	2.9%	2.4%	5.3%
Medium & Large SUV Overall Average	3.7%	2.4%	6.1%

Forecast changes this month

Fewer ranges were reforecast as part of our Interproduct review this month due to the large number of ranges involved in the Medium and Large SUV review and staff shortages. Over 100 ranges were considered, but in some cases it was decided to make no changes to the forecasts.

Some of these ranges were also reforecast as part of the Interproduct exercise last month. In many of these cases 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.

ASTON MARTIN DB11 (16-)
AUDI A5 COUPE (19-)
AUDI A5 COUPE (19-) DIESEL
AUDI A5 SPORTBACK (19-)
AUDI A5 SPORTBACK (19-) DIESEL
AUDI A6 ALLROAD (19-)
AUDI A6 ALLROAD (19-) DIESEL
BENTLEY CONTINENTAL GT (17-)
BENTLEY CONTINENTAL GTC CONVERTIBLE (18-)
BENTLEY FLYING SPUR (19-)
BMW M3 SALOON (20-)
BMW MINI COOPER CLUBMAN (19-)
FIAT TIPO (16-)
FIAT TIPO (16-) Diesel
FORD MONDEO (18-) DIESEL
FORD MUSTANG (15-)
HONDA CIVIC (16-)
HYUNDAI I30 (17-)
HYUNDAI I30 (17-) DIESEL
HYUNDAI IONIQ (19-) HYBRID
JAGUAR F-TYPE (19-)
JAGUAR XE (19-) DIESEL

LEXUS LC COUPE (17-)
LOTUS EXIGE ROADSTER (12-)
MAZDA 6 (18-)
MERC AMG GT R (16-)
MERC AMG S CLASS COUPE (14-)
MERC B CLASS (19-) DIESEL
MERC V CLASS (19-) DIESEL
MERC V CLASS MARCO POLO (19-) DIESEL
MERCEDES-BENZ B CLASS (19-) Hybrid
PORSCHE PANAMERA (16-) HYBRID
RENAULT MEGANE RENAULTSPORT (18-)
ROLLS-ROYCE WRAITH (13-)
SKODA OCTAVIA (20-) Hybrid
SKODA SUPERB (19-) DIESEL
SUBARU OUTBACK (15-)
TOYOTA PROACE VERSO (16-) DIESEL
VAUXHALL ASTRA (19-)
VAUXHALL VIVARO LIFE (18-) DIESEL
VOLKSWAGEN CADDY LIFE (20-)
VOLKSWAGEN CADDY LIFE (20-) DIESEL
VOLVO S60 (19-)

ABARTH 500/595/695 (09-)	DACIA SANDERO (13-)	MERC C CLASS (18-)	PEUGEOT RIFTER (18-) Petrol
AUDI A1 (18-)	DACIA SANDERO (13-20) DIESEL	MERC C CLASS (18-) DIESEL	PEUGEOT TRAVELLER (16-) DIESEL
AUDI A6 (18-)	FIAT 500 (15-)	MERC C CLASS (19-) DIESEL HYBRID	PORSCHE BOXSTER (16-)
AUDI A6 (18-) DIESEL	FIAT PANDA (12-)	MERC C CLASS COUPE (18-)	RENAULT CLIO (19-)
AUDI Q3 (18-)	FORD FIESTA (17-)	MERC C CLASS COUPE (18-) DIESEL	RENAULT CLIO (20-) Hybrid
AUDI Q3 (18-) DIESEL	FORD FOCUS (18-)	MERC CLA CLASS COUPE (19-)	RENAULT MEGANE (16-)
AUDI TT ROADSTER (18-)	FORD FOCUS (18-) DIESEL	MERC CLS (18-)	RENAULT MEGANE (16-) DIESEL
BMW 2 SERIES ACTIVE TOURER (14-)	FORD GALAXY (19-) DIESEL	MERC CLS (18-) DIESEL	RENAULT MEGANE (20-) Hybrid
BMW 2 SERIES ACTIVE TOURER (14-) DIESEL	FORD GALAXY (21-) Hybrid	MERC E CLASS (16-) DIESEL	SEAT ATECA (16-)
BMW 2 SERIES ACTIVE TOURER (15-) PETROL HYBRID	FORD GRAND TOURNEO CONNECT (13-) DIESEL	MERC E CLASS (18-)	SEAT ATECA (16-) DIESEL
BMW 2 SERIES CONVERTIBLE (14-)	FORD KUGA (19-)	MERC E CLASS (18-) DIESEL HYBRID	SEAT IBIZA (17-)
BMW 2 SERIES COUPE (13-)	FORD KUGA (19-) DIESEL	MERC E CLASS CABRIOLET (17-)	SEAT TARRACO (18-)
BMW 2 SERIES GRAN TOURER (15-)	FORD KUGA (19-) Hybrid	MERC E CLASS CABRIOLET (17-) DIESEL	SEAT TARRACO (18-) Diesel
BMW 2 SERIES GRAN TOURER (15-) DIESEL	FORD MUSTANG CONVERTIBLE (15-)	MERC E CLASS COUPE (16-)	SKODA FABIA (18-)
BMW 4 SERIES COUPE (20-)	FORD S-MAX (19-) DIESEL	MERC E CLASS COUPE (16-) DIESEL	TESLA MODEL S (19-)
BMW 4 SERIES COUPE (20-) DIESEL	FORD S-MAX (21-) Hybrid	MERC S CLASS COUPE (14-)	TESLA MODEL X (19-)
BMW 4 SERIES GRAN COUPE (14-)	FORD TOURNEO CONNECT (13-) DIESEL	MERCEDES-BENZ C CLASS CABRIOLET (18-)	TOYOTA AYGO (18-)
BMW 5 SERIES (16-)	HONDA JAZZ (20-) HYBRID	MERCEDES-BENZ C CLASS CABRIOLET (18-) DIESEL	TOYOTA YARIS GR (20-)
BMW 5 SERIES (16-) DIESEL	JAGUAR XF (15-)	MERCEDES-BENZ E CLASS (16-) Petrol Hybrid	VAUXHALL COMBO LIFE (18-)
BMW 5 SERIES (17-) HYBRID	JAGUAR XF (15-) DIESEL	MERCEDES-BENZ S CLASS CABRIOLET (16-)	VAUXHALL COMBO LIFE (18-) Diesel
BMW MINI CONVERTIBLE (18-)	KIA E-NIRO (18-) Electric	MG 3 (18-)	VAUXHALL GRANDLAND X (17-)
BMW MINI ONE (18-)	KIA NIRO (19-)	NISSAN MICRA (16-)	VAUXHALL GRANDLAND X (17-) DIESEL
CITROEN BERLINGO MULTISPACE (18-)	KIA RIO (16-)	NISSAN QASHQAI (18-)	VOLKSWAGEN ARTEON (17-)
CITROEN BERLINGO MULTISPACE (18-) DIESEL	KIA SPORTAGE (15-) DIESEL	PEUGEOT 108 (14-)	VOLKSWAGEN ARTEON (17-) DIESEL
CITROEN C1 (14-)	MAZDA 2 (19-)	PEUGEOT 208 (19-)	VOLKSWAGEN CALIFORNIA (19-) DIESEL
CITROEN C3 (16-)	MAZDA CX-5 (17-)	PEUGEOT 208 (19-) DIESEL	VOLKSWAGEN POLO (17-)
CITROEN C4 (20-)	MAZDA CX-5 (17-) DIESEL	PEUGEOT 3008 (16-)	VOLKSWAGEN SHARAN (10-)
CITROEN C4 (20-) DIESEL	MAZDA MX-5 (15-)	PEUGEOT 3008 (16-) DIESEL	VOLKSWAGEN TOURAN (15-)
CITROEN GRAND C4 SPACE TOURER (18-)	MAZDA MX-5 RF (16-)	PEUGEOT 3008 (19-) Petrol Hybrid	VOLKSWAGEN TOURAN (15-) DIESEL
CITROEN GRAND C4 SPACE TOURER (18-) Diesel	MERC A CLASS (18-)	PEUGEOT 308 (13-)	VOLVO S90/V90 (16-) DIESEL
CITROEN GRAND TOURER (16-) DIESEL	MERC A CLASS (18-) DIESEL	PEUGEOT 308 (13-) DIESEL	VOLVO S90/V90 (17-)
DACIA LOGAN (13-)	MERC B CLASS (19-)	PEUGEOT RIFTER (18-) Diesel	VOLVO S90/V90 (17-) HYBRID

MASERATI Ghibli (2014----) Reforecast following customer query, resulting in forecast increases.

MASERATI Ghibli (2020----) Reforecast following customer query, resulting in forecast increases.

TOYOTA COROLLA (2018 ----) HYBRID Reforecast following customer query, 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.

2. Market Conditions

Strong consumer demand has resulted in record breaking increases in used values in recent months and has persisted for far longer than could reasonably have been expected. Several supply issues have also 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 particular, the "AY3" version of the delta variant, which may be more vaccine resistant).

In summary, our view is that:

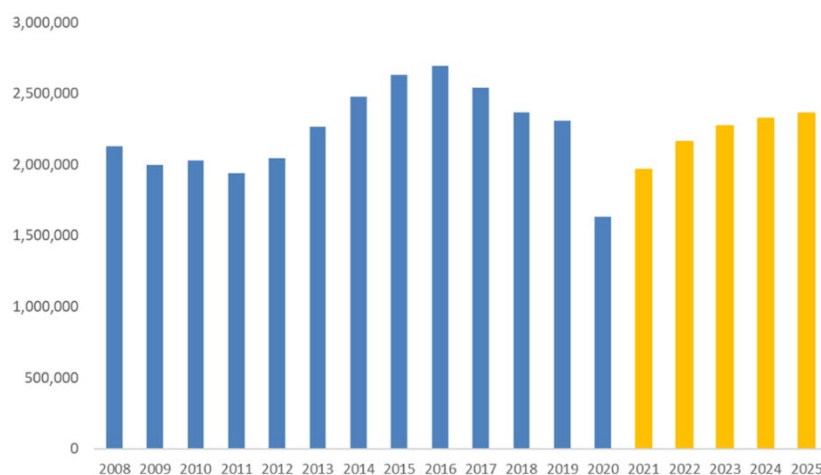
- Although we expected the current strength in the used market to last for several more weeks and possibly to the end of the year, the magnitude of the increases in recent months has been hard to comprehend and is certainly not sustainable (more than +20% increase in the last 5 months). Retail days to sell continue to be just over half of what would be expected in a 'normal' market, resulting in demand for trade vehicles almost double typical levels. 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 retail demand reduces or consumer attention moves elsewhere. Even if this is the 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 reviews. Although there has been an improvement in retail pricing in recent weeks, some dealers still have not increased prices on aged stock and the 'two tier' retail market on some 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 and seem to be changing every week. Some OEMs are expecting peak issues this quarter, some in Q4, others expecting normality by September 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 despite new car shortages, the dominant factor will be depressed consumer appetite for what will be a relatively expensive purchase and that leadtimes for the majority of models remain short enough that consumers will hold out for the new car. 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 3-year-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 have been seeing over the past 18 months).

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

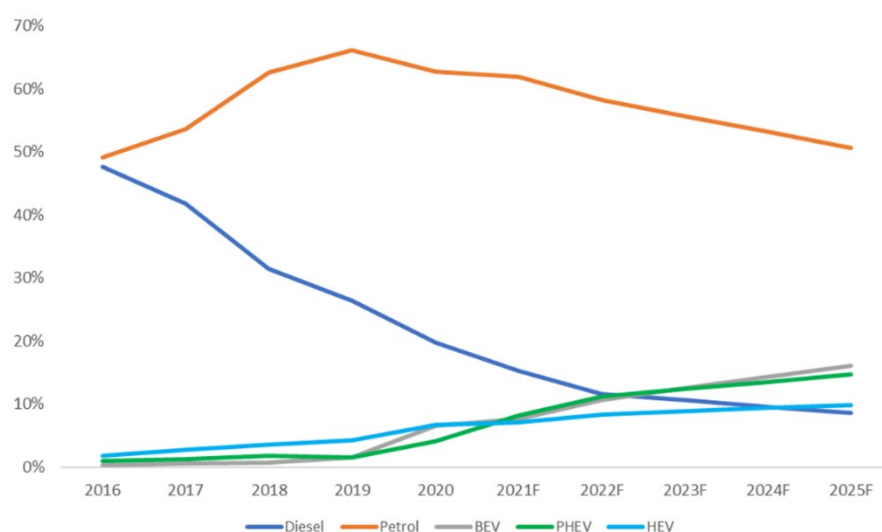
consumer demand is likely to result in decreases in used values by more than the market average.

Supply side factors

New forecast for new car registrations from the SMMT was updated in July from 1.83 million to 1.82mm. The chart below displays our own 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 June increased to 1.88mm and appeared on track to meet our estimate. New car supply issues impacted the July total by more than expected and so the forecast is currently under review and should be expected to decrease. 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

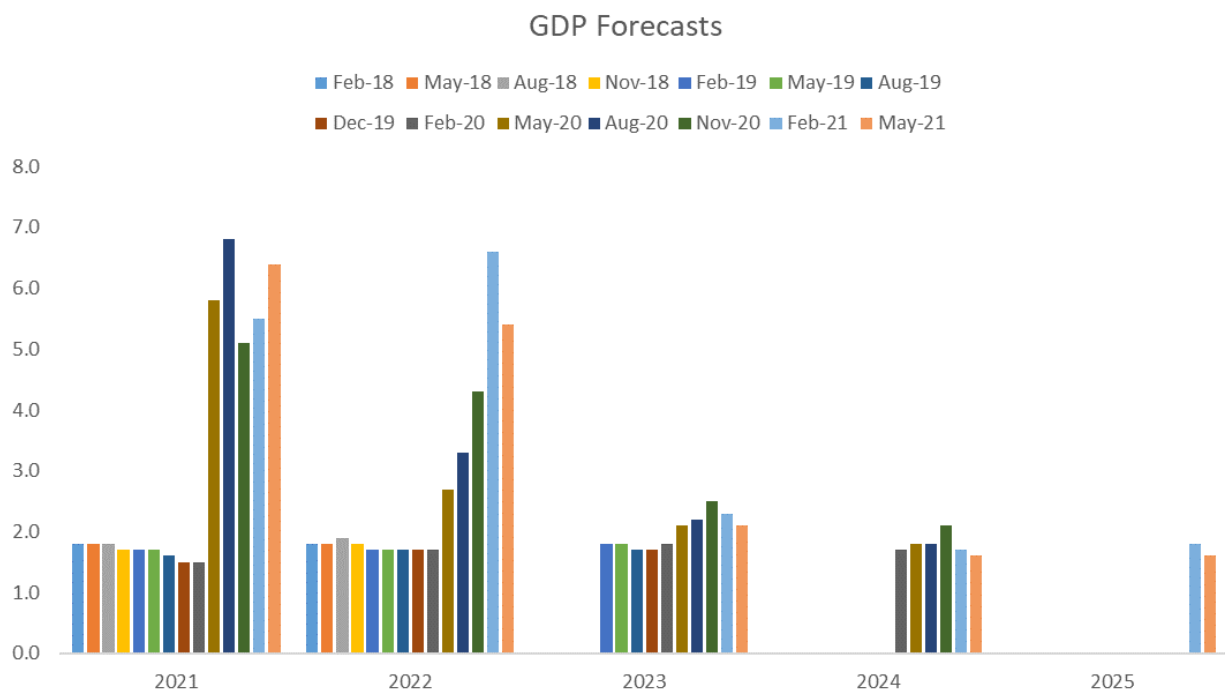
government's proposal to ban new ICE cars from 2030 will also be part of this increase, provided enough vehicle supply is made available and investment in charging infrastructure keep pace with demand.

Demand side factors

Latest independent forecasts for the UK economy were published on 25th August and show some minor improvement to forecasts for GDP this year, but with the average of +6.9% (vs. 6.4% in May) remaining slightly below the Bank of England estimate of +7.2%. The 2022/3 estimates remain unchanged and longer term GDP recovery remains subdued, despite increases of +0.1% for 2024/5 compared to the May forecasts.

Although the forecast for GDP has decreased for 2021, 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.

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



The latest unemployment forecasts continue to show a longer, 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 now set to peak at 4.5% in 2022 and the BoE do not now expect it to come back below target until at least 2023. 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).

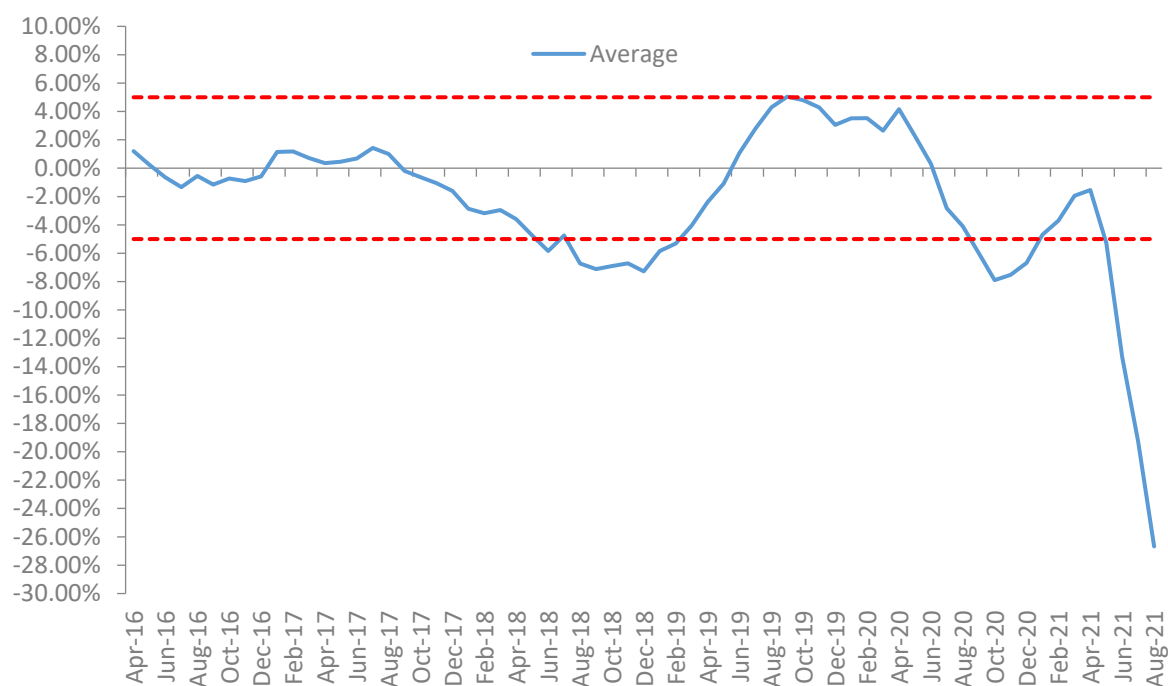
Clearly, the current unprecedented strength in the used car market is also resulting in further short-term deterioration in accuracy.

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

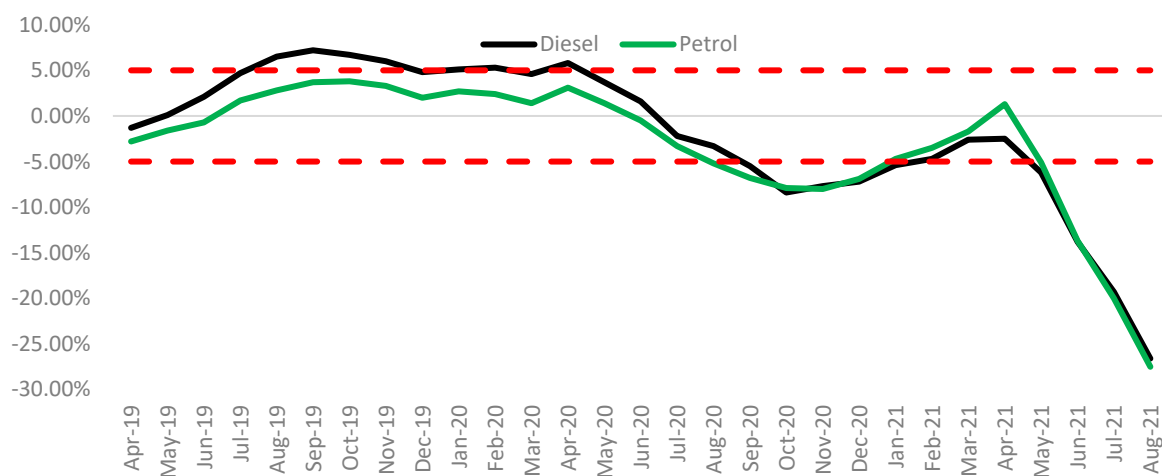
12-month results

Since measurement started our 12 month used forecasts have averaged -1.7% less than used values across all vehicle ids, and the most recent results show Aug 2020 12/20 gold book forecasts being -26.7% less than Aug 2021 12/20 used values (unsurprising following record breaking used value increases of +13.5% within three months).

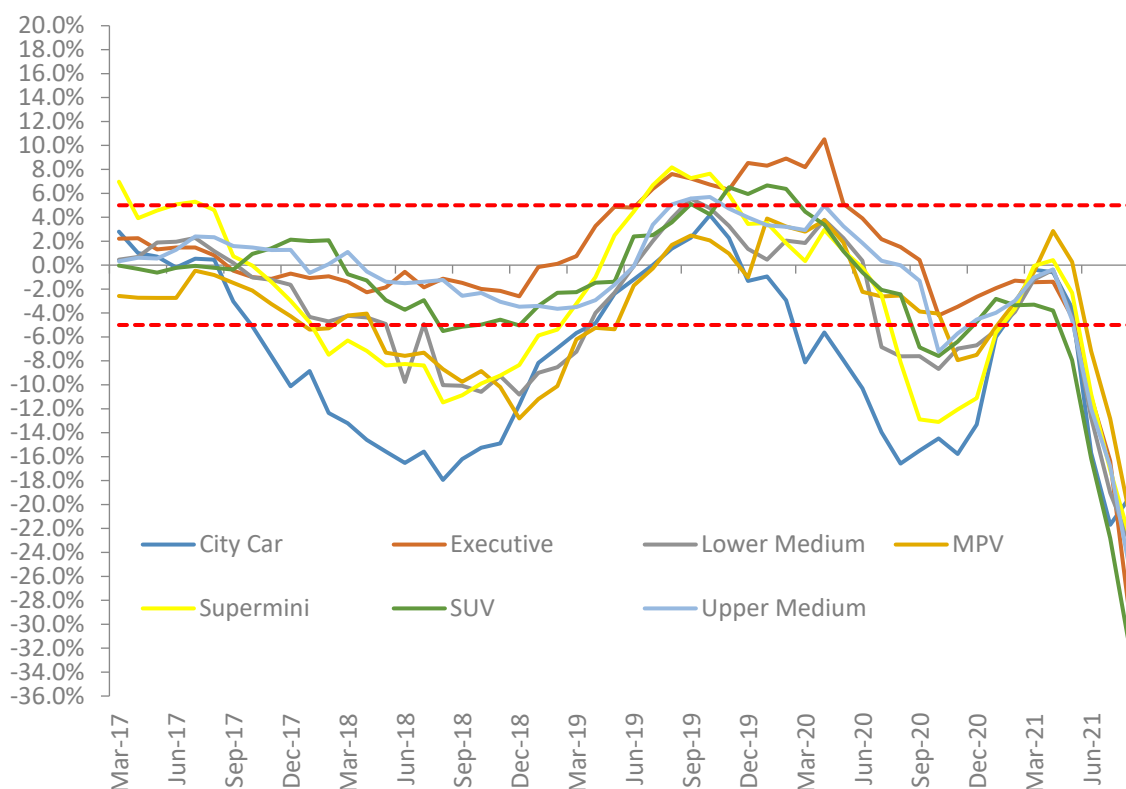
Overall results:



Fuel Type Results:



Sector Results:



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

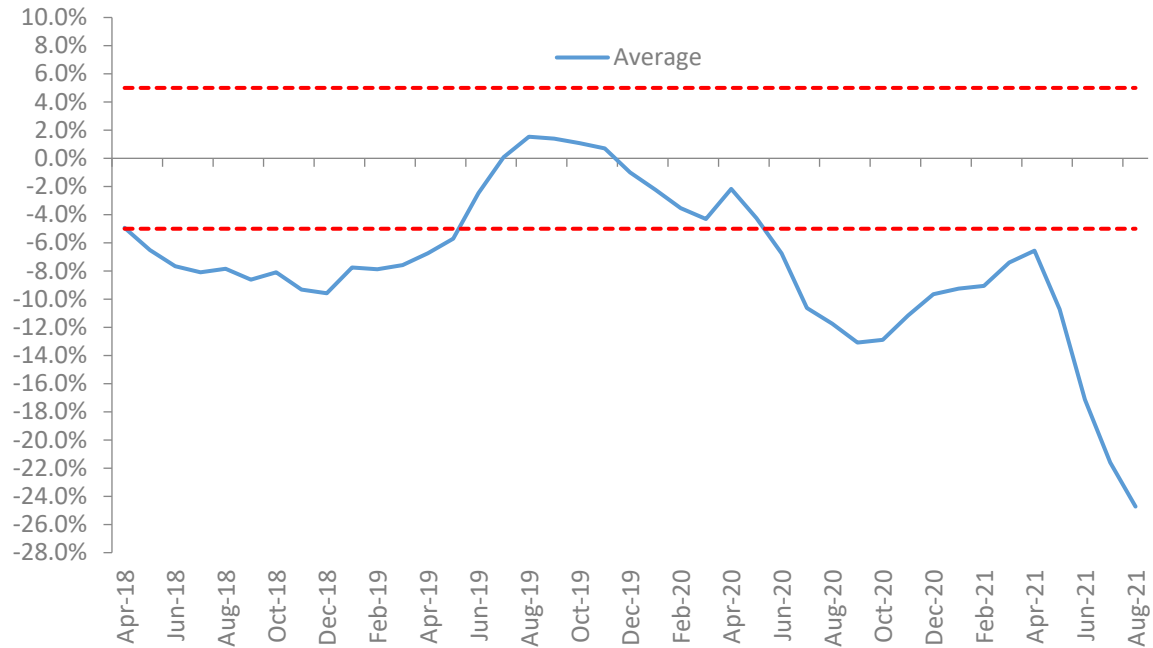
Aug 21	Average of Diff (%)
City Car	-19.4%
Executive	-29.1%
Lower Medium	-23.0%
MPV	-20.8%
Supermini	-22.6%
SUV	-31.8%
Upper Medium	-25.2%

Grand Total	-26.7%
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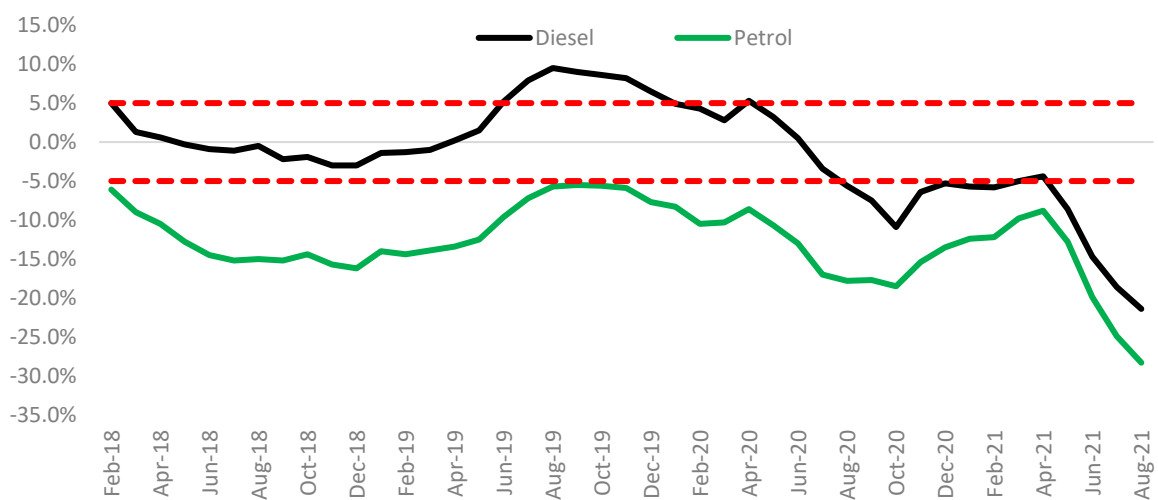
36-month results

Since measurement started our 36 month used forecasts have averaged -5.7% less than used values across all vehicle ids, and the most recent results show August 2018 36/60 gold book forecasts being -24.7% less than August 2021 36/60 used values.

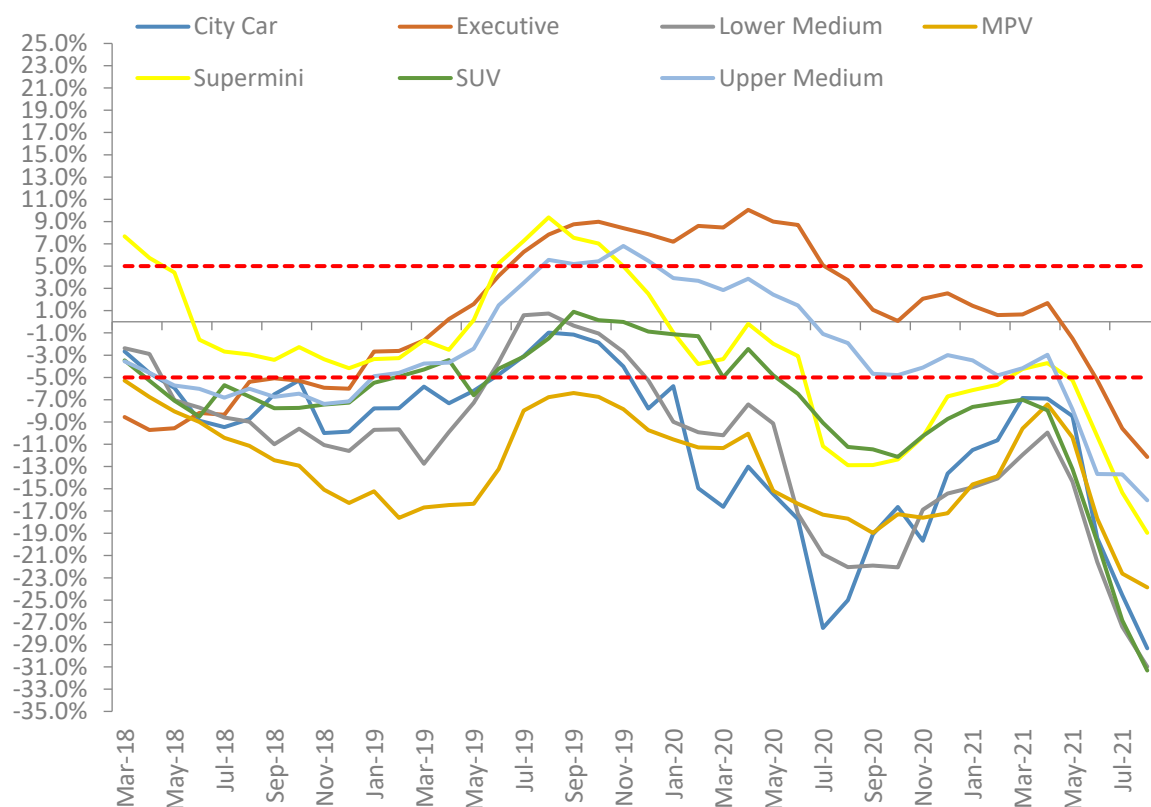
Overall Results:



Fuel Type Results:



Sector Results:



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

Aug 21	Average of Diff (%)
City Car	-29.3%
Executive	-12.1%
Lower Medium	-31.0%
MPV	-23.9%
Supermini	-19.0%
SUV	-31.3%
Upper Medium	-16.0%

Grand Total	24.7%
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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
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					
Aug-22	City Car	Supermini				
Sep-22	SUV					