September 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 August and September is approximately 3.2% at 36/60, which is slightly more than the normal expectation of the seasonal change for full year forecasts at this time of year.

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 Upper Medium, Executive, Large Executive and Luxury Executive 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 soon after our one year position. As a result, we have applied changes to our deflation phasing, with an overall improvement for most sector/fuel combinations mainly influenced by improvements in the first year as the supply shortages continue for longer than originally expected.

The deflation assumptions increased by the following averages across all fuel types and ages of vehicle, with the impact on forecast values offset by a combination of changes to previous adjustments and used value movements since the last review: Upper Medium +2.4%, Executive +2.6%, Large Executive Diesel +2.7%, Large Executive Petrol +4.0%, Luxury Executive +4.9%.





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Average forecasts movements are displayed in the table below.

| SECTOR & FUEL TYPE | UNDERLYING FORECAST CHANGE | SEASONAL ELEMENT | OBSERVED CHANGE AUGUST TO SEPTEMBER |
|-----------------------------------|----------------------------------|------------------|--|
| Upper Medium Diesel | +4.2% | +2.3% | +6.5% |
| Upper Medium Electric (BEV) | +1.4% | +2.2% | +2.6% |
| Upper Medium Hybrid (HEV) | +2.8% | +2.2% | +5.0% |
| Upper Medium Petrol | +3.4% | +2.2% | +5.6% |
| Upper Med Plug-In Hybrid (PHEV) | +3.8% | +2.2% | +6.0% |
| Executive Diesel | +2.7% | +2.3% | +5.0% |
| Executive Electric (BEV) | +2.5% | +1.7% | +4.2% |
| Executive Hybrid (HEV) | +4.0% | +1.7% | +5.7% |
| Executive Petrol | +2.1% | +1.7% | +3.8% |
| Executive Plug-In Hybrid (PHEV) | +3.4% | +1.7% | +5.1% |
| Large Exec Diesel | +4.8% | +2.1% | +6.9% |
| Large Exec Electric (BEV) | +0.7% | +2.1% | +2.8% |
| Large Exec Hybrid (HEV) | +3.8% | +2.1% | +5.9% |
| Large Exec Petrol | +3.5% | +2.1% | +5.6% |
| Large Exec Plug-In Hybrid (PHEV) | +3.7% | +2.1% | +5.8% |
| Luxury Executive Petrol | +6.1% | +2.3% | +8.4% |
| Luxury Exec Plug-In Hybrid (PHEV) | +4.8% | +2.3% | +7.1% |
| Overall Average | +3.3% | +2.1% | +5.4% |





The following profile generations were moved into the generic 'low mileage' profile (labelled as "Luxury Exec Diesel" in gold book iQ, but denoting our generic low mileage profile).

AUDI A6 (11-19) DIESEL LEXUS LC COUPE (17-) LEXUS LC COUPE (17-) PETROL HYBRID MERCEDES-BENZ CLS (11-18) DIESEL MERCEDES-BENZ CLS (18-) DIESEL MERCEDES-BENZ E CLASS COUPE (13-17) DIESEL MERCEDES-BENZ E CLASS COUPE (16-) DIESEL MERCEDES-BENZ E CLASS (16-) DIESEL MERCEDES-BENZ E CLASS (18-) DIESEL HYBRID MERCEDES-BENZ E CLASS (16-) Petrol Hybrid POLESTAR 2 (19-) Electric ROLLS-ROYCE GHOST (10-17) ROLLS-ROYCE GHOST (17-20) ROLLS-ROYCE GHOST (20-) **ROLLS-ROYCE PHANTOM (03-18)** ROLLS-ROYCE PHANTOM (17-) VOLVO S90/V90 (16-) DIESEL VOLVO S90/V90 (17-) HYBRID

The forecast impacts are decreases at lower mileage, which increase in magnitude as mileage decreases and incremental increases at higher mileage as mileage increases. Underlying forecasts at benchmark mileage are not impacted by this change - these changes were made via the sector reviews.

The following profile generations were moved into the generic 'high mileage' profile (labelled as "Supercar Diesel" in gold book iQ, but denoting our generic high mileage profile).

CITROEN C5 (08-18) DIESEL HYUNDAI I40 (11-20) DIESEL MAZDA 6 (13-18) DIESEL PEUGEOT 508 (11-18) DIESEL PEUGEOT 508 (12-17) DIESEL HYBRID TOYOTA AVENSIS (11-18) DIESEL VAUXHALL INSIGNIA (13-18) DIESEL VAUXHALL INSIGNIA (13-17) VOLVO V60 (10-18) DIESEL



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There was also a review of mileage profiles within these sectors, including changes made to the default sector/fuel profiles, with a summary of these changes below:

| | 12 months | 24 months | 36 months | 48 months | 60 months | 36/30 Impact |
|-----------------------------|---|---|---|--|--|-----------------|
| Upper Medium Diesel | -0.5% for all mileages >20,000 | Increases at high and low mileage (max 2.1%) | Increases at high mileage (max +2.1%); decreases at low mileage (max -1.9%) | Increases at high mileage (max +2.2%); decreases at low mileage (max -3.3%) | Increases at high mileage (max +2.2%); decreases at low mileage (max -6%) | -1.9% |
| Upper Medium Petrol | -0.5% at 1,000 miles | Decreases at low mileage (max -1.4%) | Decreases at low mileage (max -0.9%) | Decreases at low mileage (max -2.3%) | Decreases at low mileage (max -5.1%) | -1.4% |
| Premium Upper Medium Diesel | -0.5% for all mileages >20,000 | Increases at low mileage (max 1.0%), variable impact at high mileage (max +/-5%) | Increases at low mileage (max 1.4%), variable impact at high mileage (max +/-2%) | Increases for all mileages >220,000 (max +1.6%) | Increases up to 50,000, decreases 70,000 to 90,000, increases >100,000 (max +/- 2.9%) | 0% |
| Executive Diesel | Decreases at mileages >130,000 (max -6.5%) | None | Decreases at low mileage (max -1.9%) | Decreases at low mileage (max -4.6%) | Decreases at low mileage (max -4.6%) | -0.9% |
| Executive Petrol | None | +0.5% for all mileages >40,000 | Decreases at low mileage (max -0.9%) | Decreases at low mileage (max -4.6%) | Decreases at low mileage (max -5.5%) | -0.9% |
| Large Executive Diesel | Decreases at mileages >130,000 (max -6.5%) | None | Increases at high mileage (max +2.1%); decreases at low mileage (max -0.9%) | Decreases at low mileage (max -4.2%) | Decreases at low mileage (max -4.2%) | -0.9% |
| Large Executive Petrol | None | +0.5% for all mileages >40,000 | Decreases at low mileage (max -0.9%) | Decreases at low mileage (max -5.0%); +0.5% for all mileages >80,000 | Decreases at low mileage (max -6.4%) | -0.9% |
| Luxury Executive Petrol | None | None | Decreases between 30,000 and 50,000 (max · 0.9%) | Decreases at low mileage (max -3.3%) | Decreases at low mileage (max -5.5%) | -0.5% |

Please note that the forecast impact on older used car forecasts at extremes of low mileage may be greater than displayed in the above table for 60 month forecasts.

Forecast changes this month

The focus of our Interproduct reporting remains split between cases where our forecast was too far below the used value and those where recent used value reductions have resulted in forecast values above the latest used value position. This month over 170 ranges were considered, but in most 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 again 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.



Interproduct Reporting Changes

ALPINA X3 (19-) Diesel ALPINA XB7 (20-) AUDI Q3 (18-) AUDI Q3 (18-) DIESEL AUDI Q3 (21-) Petrol Hybrid AUDI Q5 (19-) Petrol Hybrid AUDI Q7 (20-) Petrol Hybrid AUDI Q8 (19-) AUDI Q8 (20-) Hybrid AUDI RS Q8 (19-) AUDI RSQ3 (19-) AUDI RSQ3 SPORTBACK (19-) AUDI SQ5 SPORTBACK (20-) Diesel BENTLEY BENTAYGA (19-) Hybrid BMW iX3-E (21-) Electric BMW X1 (19-) DIESEL BMW X1 (20-) Hybrid BMW X2 (20-) Petrol Hybrid BMW X3 (19-) Petrol Hybrid BMW X3M (19-) BMW X5 (19-) PETROL HYBRID BMW X6 (19-) BMW X6 (19-) DIESEL BMW X7 (18-) BMW X7 (18-) Diesel CITROEN C5 AIRCROSS (19-) Hybrid CUPRA ATECA (18-) CUPRA FORMENTOR (20-) CUPRA FORMENTOR (20-) Hybrid DS DS7 CROSSBACK (17-) FORD KUGA (19-) Hybrid FORD MUSTANG MACH-E (20-) Electric FORD PUMA (19-) GENESIS GV70 (21-) Diesel GENESIS GV80 (21-) Diesel HONDA HR-V (21-) Hybrid HYUNDAI BAYON (21-) HYUNDAI IONIQ 5 (21-) Electric HYUNDAI KONA (19-) Hybrid HYUNDAI TUCSON (20-) HYUNDAI TUCSON (20-) Hybrid JAGUAR E-PACE (17-) DIESEL JAGUAR F-PACE (20-) JAGUAR F-PACE (20-) DIESEL

JAGUAR F-PACE (20-) Hybrid JEEP COMPASS (17-) JEEP RENEGADE (18-) JEEP RENEGADE (20-) Hybrid JEEP WRANGLER (18-) KIA EV6 (21-) Electric KIA SORENTO (20-) DIESEL KIA SORENTO (20-) Hybrid KIA STONIC (17-) LAMBORGHINI URUS (18-) LAND ROVER DEFENDER (19-) LAND ROVER DISCOVERY (16-) LAND ROVER DISCOVERY (16-) DIESEL LAND ROVER DISCOVERY SPORT (20-) Hybrid LAND ROVER RANGE ROVER VELAR (20-) Hybrid MERCEDES-BENZ AMG G CLASS (18-) MERCEDES-BENZ AMG GLA CLASS (20-) MERCEDES-BENZ EOA (21-) Electric MERCEDES-BENZ G CLASS (19-) DIESEL MERCEDES-BENZ GLA (20-) DIESEL MERCEDES-BENZ GLA CLASS (20-) MERCEDES-BENZ GLA CLASS (20-) Hybrid MERCEDES-BENZ GLB (20-) MERCEDES-BENZ GLB (20-) Diesel MERCEDES-BENZ GLC (20-) Diesel Hybrid MERCEDES-BENZ GLC COUPE (19-) MERCEDES-BENZ GLC COUPE (20-) Diesel Hybrid MERCEDES-BENZ GLC COUPE (20-) Hybrid MERCEDES-BENZ GLE (18-) MERCEDES-BENZ GLE (18-) DIESEL MERCEDES-BENZ GLE (19-) Diesel Hybrid MERCEDES-BENZ GLE COUPE (19-) DIESEL MERCEDES-BENZ GLS (19-) DIESEL MERCEDES-BENZ GLS (20-) MG MOTOR UK HS (19-) MG MOTOR UK HS (20-) Hybrid MG MOTOR UK ZS (17-) MG MOTOR UK ZS (19-) Electric PEUGEOT 2008 (19-) PEUGEOT 2008 (19-) DIESEL PEUGEOT 3008 (19-) Petrol Hybrid PORSCHE CAYENNE (18-) HYBRID PORSCHE CAYENNE COUPE (19-) PORSCHE CAYENNE COUPE (19-) Hybrid

PORSCHE MACAN (18-) RENAULT ARKANA (21-) RENAULT ARKANA (21-) Hybrid RENAULT CAPTUR (19-) RENAULT CAPTUR (20-) Hybrid ROLLS-ROYCE CULLINAN (18-) SEAT TARRACO (18-) SEAT TARRACO (18-) Diesel SKODA ENYAO (20-) Electric SSANGYONG REXTON (17-) DIESEL SSANGYONG TIVOLI (19-) SUBARU FORESTER (19-) Hybrid SUBARU XV (17-) SUBARU XV (19-) Hybrid SUZUKI ACROSS (20-) Hybrid SUZUKI IGNIS (16-) SUZUKI VITARA (21-) Hybrid TESLA MODEL Y Electric TOYOTA BZ4X (21-) Electric TOYOTA C-HR (19-) HYBRID TOYOTA RAV4 (18-) HYBRID TOYOTA YARIS CROSS (21-) Petrol Hybrid VAUXHALL CROSSLAND X (17-) VAUXHALL GRANDLAND X (19-) Petrol Hybrid VAUXHALL MOKKA (20-) VAUXHALL MOKKA (20-) DIESEL VAUXHALL MOKKA (20-) Electric VOLKSWAGEN ID.4 (21-) Electric VOLKSWAGEN T-CROSS (19-) VOLKSWAGEN TIGUAN (16-) VOLKSWAGEN TIGUAN (16-) DIESEL VOLKSWAGEN TIGUAN (20-) Hybrid VOLKSWAGEN TIGUAN ALLSPACE (17-) VOLKSWAGEN TIGUAN ALLSPACE (17-) Diesel VOLKSWAGEN TOUAREG (21-) HYBRID VOLKSWAGEN T-ROC (17-) Diesel VOLVO C40 (21-) Electric VOLVO XC40 (19-) Hybrid VOLVO XC40 (20-) Electric VOLVO XC60 (17-) DIESEL VOLVO XC60 (17-) HYBRID VOLVO XC90 (14-) HYBRID VOLVO XC90 (15-)



By cap hpi

AUDI S3 (20-) Walk up review of trim, body relationships resulting in overall forecast increases on Vorsprung and Saloon IDs **CITROEN BERLINGO MULTISPACE (18-) DIESEL** Walk up review of trim, engine and transmission relationships resulting in overall forecast increases on some IDs FORD FIESTA (21-) Full walk up review following customer query, with changes to relationships within walk up elements FORD S-MAX (19-) DIESEL Walk up review of trim, engine and transmission relationships resulting in overall forecast increases on some IDs FORD TOURNEO CONNECT (13-) DIESEL Walk up review of trim, engine and transmission relationships resulting in overall forecast increases on some IDs LEXUS NX (21-) HYBRID Reforecast following customer query, resulting in forecast increases **MERCEDES-BENZ AMG GLE (19-)** Walk up review of trim, engine and feature relationships resulting in overall forecast increases on some IDs **PEUGEOT 208 (19-)** Reforecast following customer query, updating depreciation curve, resulting in forecast increases at 4 and 5 years **PEUGEOT TRAVELLER (16-) DIESEL** Walk up review of trim and transmission relationships resulting in overall forecast increases on some IDs SEAT LEON (20-) DIESEL Walk up review of trim and engine relationships resulting in overall forecast increases on some IDs **TOYOTA BZ4X (21-) Electric** Reforecast following customer query, resulting in forecast increases **TOYOTA COROLLA (18-) Hybrid** Walk up review of trim and engine relationships resulting in overall forecast increases on some IDs **TOYOTA PROACE VERSO (16-) DIESEL** Walk up review of trim and engine relationships resulting in overall forecast increases on some IDs VAUXHALL CORSA (19-) Reforecast following customer guery, updating depreciation curve, resulting in forecast increases at 4 and 5 years

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

Retail demand continues to be relatively subdued as we expected, with the cost of living squeeze the primary limiting factor. However, dealers have continued to demonstrate the resilience of the industry with their desire to buy stock in the current situation, especially given the issues many have with aged stock. It seems that for now worries about future stock shortages remain the dominating concern, but this is expected to once again be outweighed by reduced demand in the medium term, although there will remain a core demand from 'needs purchasers'. Trade performance has remained very robust for cars of five years old and under, although the softening of prices for older cars has continued, primarily because their typical buyers will tend to suffer more from the cost of living squeeze.

Despite the modest average price reductions seen over the past few weeks, retail prices for many used cars remain priced above cost new and there are still a small number of 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. Therefore, reductions in used values are expected for most of the remainder of the year, albeit at a steadier rate than was originally forecast, although with a possibility that they will accelerate towards the end of the year. It is currently very difficult to determine where the market will be in 12 months' time, due to the increases in used car volume being delayed to such an extent that they start to merge into the period of reduced supply from lower new car registrations through the pandemic.



By cap hpi

There are continued concerns about the potential for lockdowns in various cities in mainland China due to the latest Covid variants and their possible spread triggering responses in line with China's ongoing "zero Covid" policy. Further significant disruption would be expected to follow, especially if Shanghai is locked down again. The delays to parts (including spares), components, systems and BEV batteries from the previous lockdowns are still being felt to some extent. There are ongoing Covid-related impacts all across the supply chain and global supply chains remain fragile. Semi-conductor supply remains constrained, but availability for several manufacturers has improved and is expected to result in improved new car registration performance before the end of the year. Longer term concerns regarding security of water and power supplies, plus the potential for invasion by China, result in an outlook where chips in general remain in relatively short supply until additional manufacturing capacity comes on stream. Further supply disruption seems inevitable and the timing of that disruption and location of the countries impacted is likely to be impossible to predict.

Some of the increases in raw material costs caused by the war in the Ukraine have eased slightly, but rising global energy markets remain a significant problem. Container prices and shipping costs are also continuing to reduce from their previous highs and oil prices are markedly lower than they were last month, but wholesale gas prices continue to increase and the global inflation outlook remains complex. Increases in base rates from central banks, including the Bank of England, are thought to be unlikely to have any significant impact on inflation and appear more likely to damage growth.

In summary, our view is that:

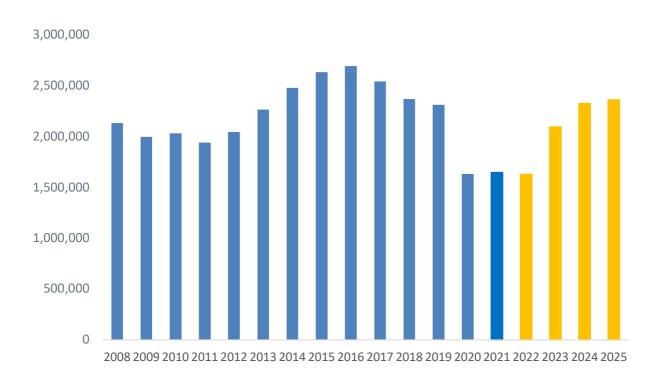
- Reductions in used values are expected to continue through the holiday period, but at a slightly slower rate than
 that observed in March and April, albeit slightly faster than seen between May and July. Retail demand will continue
 to soften over the short term as the reality of the cost-of-living squeeze continues to make itself felt. Despite the
 short-term disruption, used car volumes will slowly increase in the coming months as fleets start to receive
 replacements for long overdue vehicles. For most sectors, our short-term forecasts now show modest negative
 movements for the next few months.
- 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. However, several manufacturers are now expecting improvements in supply as we progress through the second half of the year.
- 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 more 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 in early 2023, 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

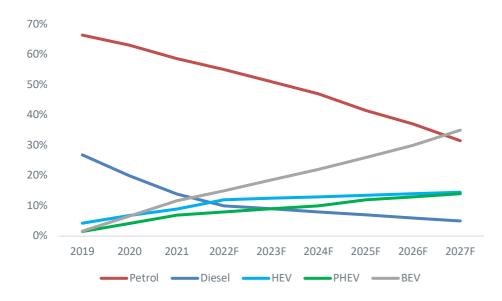
The 2021 forecast for new car registrations from the SMMT started at 1.83 million reduced in July to 1.820mm and in October revised down to 1.66mm. Our forecast followed a similar trajectory. Final results were 1.65mm – down +1.0% higher than 2020 but -28.8% down on 2019. New car supply issues will continue to limit registrations in 2022, but our original forecast for this year was an improvement to just under 1.9mm. Following the disruption of the key month of March due to the war in the Ukraine this was again revised down to a fraction below 1.8mm (an improvement of +9% vs. 2021, but -22% vs. 2019), and following further unforeseen disruption, our latest forecast for the year is reduced to 1.63 mm, now -1.2% down on 2021. The SMMT forecast reduced to 1.60mm this month.

Our forecast for 2022 still assumes some element of recovery for some OEMs in the final quarter, but also assumes that some further supply issues are likely to occur. The rolling 12 month sales rate has decreased to just under 1.53 mm, but is thought to be near its low point, as some manufacturers are already seeing some modest improvements in supply. Our forecast for 2023 is unchanged at 2.09mm (still almost -10% down on 2019). We expect that registrations will gradually increase to a pre-pandemic level of 2.3 million registrations by 2024, but not returning to the peaks seen in 2016.





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 hardcore 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 and the largest fuel type in the market by the end of 2027. 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

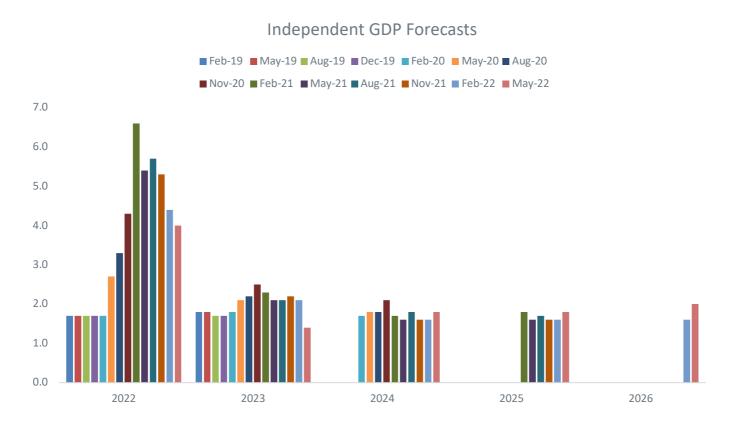
Latest independent forecasts for the UK economy were published this month and showed further significant downgrades on the outlook for GDP for 2022 and 2023 compared to May, down by -0.5% to -0.2% respectively to 3.5% and 1.2% (compared with OBR forecasts of +3.8% and +1.8%). The Bank of England estimate is more conservative at +3.2% but assumes deflation decreasing more quickly than the independent forecasts and being back below target by the middle of 2024. Longer-term GDP recovery improves in the independent forecasts, with GDP forecast to improve slightly for 2024/5/6 to +1.9%, +2.0% and +2.0%, although this also partially reflects the lower growth expected in 2023.

The BoE outlook remains "uncertain", with their 'fan charts' remaining as widely spaced as they have ever been.





The chart below shows the latest GDP forecasts to 2026, alongside previous forecasts.



The latest independent unemployment forecasts are reasonably flat for the next few years, with the Bank Of England still showing a gradual increase from current levels and close to pre-pandemic levels by 2025.

Inflation continues to increase to 10.1% (from 9.4% last month, 6.2% in March and compared to the original expected peak of 4.5% in 2022) and the BoE do not now expect it to come back below target until the end of 2024. The recent increases have been driven by a combination of increased fuel and 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 50 basis points to 1.75% in August and may increase again in in the near future, but are still forecast to remain low by historical standards, especially given concerns that raising rates too quickly could cause a recession, particularly since the current high inflation is primarily driven by energy prices rather than business or consumer behaviour. A significant proportion of consumers had built up considerable savings during the pandemic, but many will be cautious about their future economic stability and others have reduced financial circumstances. The BoE's August survey forecasts household savings rate already at historically low levels to decline from 5% in 2022 Q3 to 3½% at the end of next year and still suggests that only 10% of accumulated savings will be spent and 75% of households do not intend to spend any at all, with those funds now earmarked to fend off the cost-of-living squeeze.

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.



By cap hpi

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).

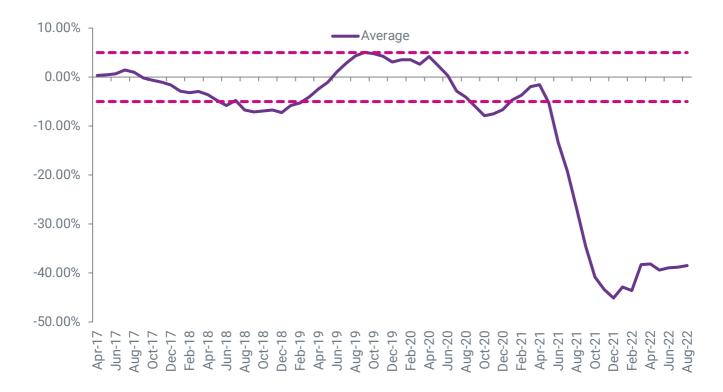
Clearly, the current unprecedented strength in the used car market is also resulting in further short-term deterioration in accuracy.

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 -6.8% less than used values across all vehicle ids, and the most recent results show August 2021 12/20 gold book forecasts being -38.5% less than August 2022 12/20 used values (unsurprising following record breaking used value increases in recent months).

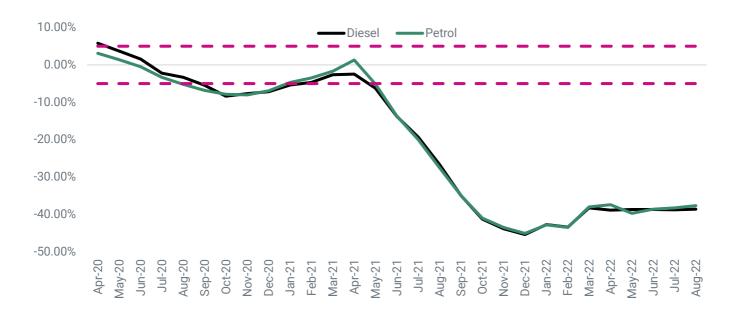
Overall results:



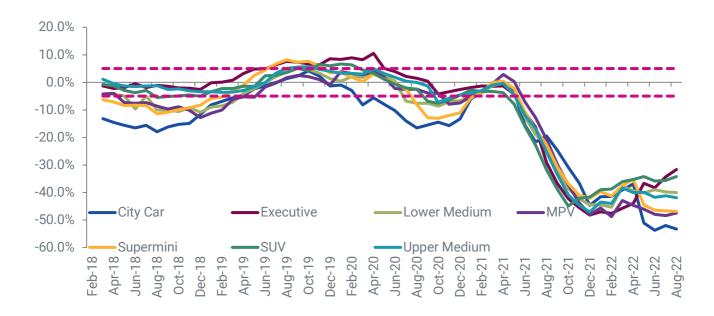
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Fuel type results



Sector results



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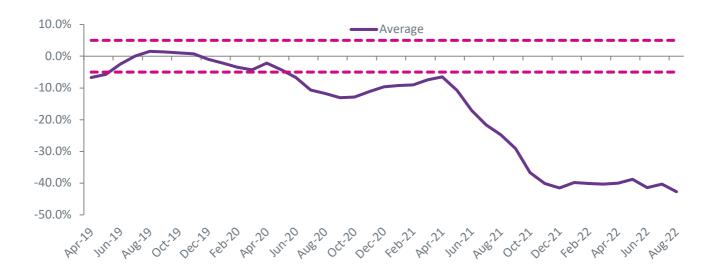
The most recent results for the main sectors are as follows:

| August 22 | Average of Diff (%) |
|--------------|------------------------|
| City Car | -53.3% |
| Executive | -31.7% |
| Lower Medium | -40.0% |
| MPV | -47.4% |
| Supermini | -46.9% |
| SUV | -34.2% |
| Upper Medium | -41.9% |
| Grand Total | -38.5% |

36-month results

Since measurement started our 36 month used forecasts have averaged -11.6% less than used values across all vehicle ids, and the most recent results show August 2019 36/60 gold book forecasts being -42.7% less than August 2022 36/60 used values.

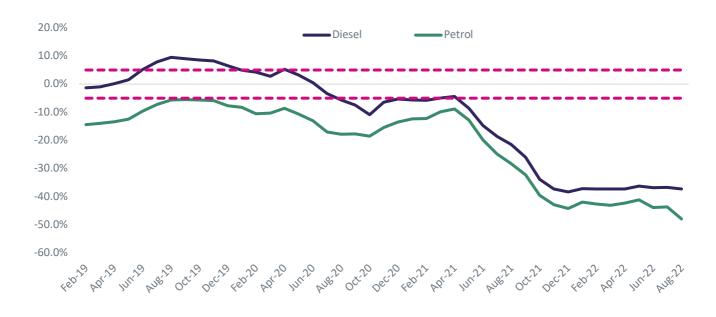
Overall results:



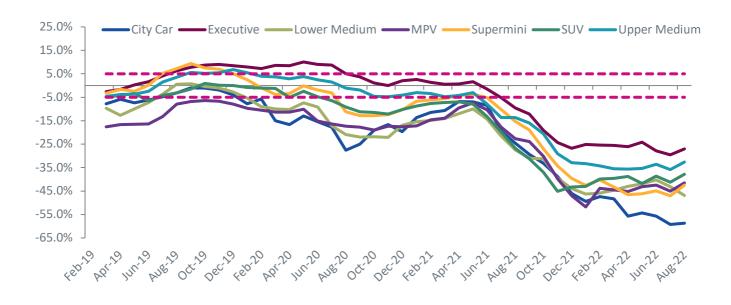


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Fuel type results:



Sector results





By cap hpi

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

| August 22 | Average of Diff (%) |
|--------------|------------------------|
| City Car | -72.4% |
| Executive | -26.8% |
| Lower Medium | -46.9% |
| MPV | -42.2% |
| Supermini | -56.6% |
| SUV | -37.1% |
| Upper Medium | -31.5% |
| Grand Total | -42.7% |

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.

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)

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 |
|-----------------|--------------|-----------|-----------------|------------------|
| Oct-22 | Lower Medium | MPV | | |
| Nov-22 | Convertible | Sports | Supercar | |
| Dec-22 | SUV | | | |
| Jan-23 | City Car | Supermini | | |
| Feb-23 | Upper Medium | Executive | Large Executive | Luxury Executive |
| Mar-23 | Lower Medium | MPV | | |
| Apr-23 | Convertible | Sports | Supercar | |
| May-23 | SUV | | | |
| Jun-23 | City Car | Supermini | | |
| Jul-23 | Upper Medium | Executive | Large Executive | Luxury Executive |
| Aug-23 | Lower Medium | MPV | | - |
| Sep-23 | Convertible | Sports | Supercar | |



