

Car future editorial

By cap hpi

January 2023

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 December and January is approximately +1.3% at 36/60, which is broadly in line with the normal expectation of the seasonal change for full year forecasts at this time of year.

Sector reforecasts

This month, we publish new reforecasts for the City Car and Supermini 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 before our one year position. For both of the small car sectors and all fuel types we have retained our previous deflation assumptions – these models are expected to remain in demand in the short to medium term due to their price positioning, but due to their lower financial value they have the potential for larger percentage movements.

Average forecasts movements are displayed in the table below.

SIZE & FUEL TYPE	UNDERLYING FORECAST CHANGE	SEASONAL ELEMENT	OBSERVED CHANGE DECEMBER TO JANUARY
City Car Electric (BEV)	+0.9%	+2.0%	+2.9%
City Car Petrol	+4.0%	+2.0%	+6.0%
Supermini Diesel	+2.9%	+1.1%	+4.0%
Supermini Electric (BEV)	+1.5%	+0.8%	+2.3%
Supermini Hybrid (HEV)	+3.6%	+0.8%	+4.4%
Supermini Petrol	+3.2%	+0.8%	+4.0%
Overall Average	+3.2%	+1.2%	+4.4%

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Broadly speaking, the average increases are relatively consistent by size and fuel type, but there are a couple of exceptions. The few available Supermini diesel models have generally increased by less than the other fuel types, but it should be pointed out that there are now only 2 diesel models in the Supermini sector.

Battery electric models have increased by less than the average. This is a combination of several factors. Previous used values increases have largely been offset by the reductions seen in recent weeks. The most recent reductions in used values had been expected for the models which had been based on low volume or where used retail values were over cost new, however the speed of the reductions was greater than anticipated and we will continue to monitor the situation. There is also some evidence of discounting on new cars which clearly further fuels used value price falls. Our expectation is that there is further adjustment to come, but that the rate of price falls will slow – in general, models which experience significant reductions reach a point where they once again become attractive in the used market and values flatten out or even rebound a little.

The data table above outlines the changes at 36/60, but it should be noted that the average underlying change at 12/20 was close to zero for both sectors and across available fuel types.

Mileage profiles were reviewed once again, but no changes were made to either the default profiles or the allocation for any current profile generations.

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).

AUDI A1 (10-19) DIESEL
VOLKSWAGEN POLO (09-18)

The forecast impacts are increases at lower mileage, which increase in magnitude as mileage decreases and incremental reductions 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.

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 almost 138 ranges were considered, but in the majority of cases, it was decided to make no changes to the forecasts.

In the vast majority 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.

Interproduct Reporting Changes

ALFA ROMEO GIULIA (16-)
ALPINA B8 (21-)
ASTON MARTIN DBS (18-)
AUDI E-TRON (18-) Electric
AUDI RS6 (19-)
BMW 2 SERIES ACTIVE TOURER (21-) Diesel
BMW 2 SERIES ACTIVE TOURER (22-) Petrol Hybrid
BMW 2 SERIES COUPE (21-) DIESEL
BMW 8 SERIES (18-)
BMW 8 SERIES GRAN COUPE (19-)
CUPRA BORN (21-) ELECTRIC
CUPRA LEON (20-) Hybrid
DS DS4 (21-) Hybrid
FORD GALAXY (21-) Hybrid
FORD S-MAX (21-) Hybrid
JAGUAR F-TYPE (19-)

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NISSAN eNV200 (14-)
SMART FORTWO CABRIOLET (20-) Electric
VAUXHALL ASTRA (21-)
VAUXHALL VIVARO LIFE (20-) Electric
VOLKSWAGEN GOLF (20-) HYBRID
VOLKSWAGEN GOLF GTI (20-)

Other Forecast Changes

JAGUAR XE (10-19) DIESEL

Penalty for 2.0d (163) engine increased from £200 to £700 and penalty for manual transmission increased from £350 to £1,050

KIA OPTIMA (15-19) DIESEL

Walk up review of trim, body style and facelift relationships, with varying forecast impact

MERCEDES-BENZ AMG A CLASS (18-)

Walk up review of trim, engine and feature relationships, with varying forecast impact

MERCEDES-BENZ AMG CLA CLASS (19-)

Walk up review of trim, engine and feature relationships, with varying forecast impact

MERCEDES-BENZ B CLASS (19-)

Walk up review of trim, engine and feature relationships, with varying forecast impact

MERCEDES-BENZ B CLASS (19-) DIESEL

Walk up review of trim, engine and feature relationships, with varying forecast impact

NISSAN LEAF (17-)

Walk up review of trim, engine and feature relationships, with varying forecast impact

There was also a review of automatic transmission premiums for the City Car and Supermini sectors, following analysis of latest used values and longer-term trends. Vehicles in the following ranges have received changes to the automatic transmission relationships.

ABARTH 500/595/695 (09-)	NISSAN MICRA (16-)
AUDI A1 (10-19) DIESEL	RENAULT CLIO (13-20)
CITROEN C3 (16-)	RENAULT TWINGO (14-20)
FIAT 500 (15-)	SEAT IBIZA (17-)
HYUNDAI I10 (14-20)	SKODA FABIA (18-22)
HYUNDAI I10 (19-)	SKODA FABIA (21-)
KIA PICANTO (17-)	SMART FORTWO (14-19)
MAZDA 2 (14-20)	SUZUKI BALENO (16-19)
MINI ONE (18-22)	VAUXHALL ADAM (12-19)
MINI COOPER (18-)	VAUXHALL CORSA (14-20)
MINI COOPER S (18-)	VOLKSWAGEN UP (12-)

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.

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2. Market changes

The political turmoil of the last few months had barely any effect on the used car market. Retail demand was not quite as subdued as we had expected, although in recent weeks the seasonal drop-off in demand has been in line with expectations for a typical December in the run up to the Christmas holidays. The cost-of-living squeeze will continue to make itself felt for several more months and demand is likely to remain relatively subdued in the New Year. Dealers have been reluctant to buy stock as they would normally do during December, partly due to concerns at the level of financial exposure of their stockholding, especially with year-end approaching. Concerns about future stock shortages are starting to ease for many, with the increased new and used car supply still expected to be matched with core demand from 'needs purchasers'. Trade performance has remained very robust across the board until very recently, with older cars recovering some of their previous reductions as buyers start to shift across the used car spectrum. The decrease in used values at 36/60 of -1.5% was entirely normal for December, but a fairly flat market is expected next month and 2023 is expected to get off to a relatively slow start.

Used values have now reduced for seven out of the past eight months, but those decreases have all been better than expected for the time of year and combined are around +4% better than the normal expectation – quite remarkable in the circumstances. Despite the price reductions seen over recent months, retail prices for some used cars remain priced above cost new and there are still a small number of cases where the trade value significantly exceeds list price. In the past few weeks, we have seen continued reductions in some of the volume BEV models which were sitting exceptionally high against cost new and in some cases, we have been able to reduce our significant negative editorial adjustments (originally implemented to reflect the fact that prices were not sustainable). There has also been a small amount of new car price discounting which has further fuelled used car price reductions on these models.

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. 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 March we will be three years on from the first UK impacts of Covid-19.

The concerns about the potential for lockdowns in various cities in mainland China remain, following the unexpected reversal of China's previous "zero Covid" policy during December and a subsequent surge in infections raising concerns about the ability of the health services to cope and prompting a wave of panic buying. Now that mass testing has ceased, the impact of the newer Omicron variants remains extremely uncertain. If lockdowns were to happen again, further significant disruption would be expected to follow, especially if Shanghai is one of the areas locked down. The delays to parts (including spares), components, systems and BEV batteries from the previous lockdowns had only just eased.

There are ongoing Covid-related impacts all across the supply chain and global supply chains remain fragile. Semiconductor supply remains constrained, but availability for several manufacturers has improved and is expected to result in continued improved new car registration performance for the rest of the year and into 2023. Longer term concerns regarding security of water and power supplies in Taiwan, 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, but the level of disruption is expected to be less than seen over the past two years.

Many of the increases in raw material costs caused by the war in the Ukraine have eased and wholesale natural gas prices have continued to soften, falling again from a short-term spike at the end of November. Container prices and shipping costs remain well below their previous highs and diesel prices have started to ease, but 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 to have potential to limit growth. We expect any reduction in inflation in the coming months to be a (direct or indirect) result of lower fuel and energy costs.

The November Autumn Statement was a massive improvement over the September "Fiscal Event" that caused havoc in the financial markets and hikes in available interest rates. A more common-sense approach is now being taken and although more could have been done to boost growth, the majority of actions were sensible and meltdown seems to

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have been avoided. However, consumer demand may suffer from insufficient support being targeted at lower paid workers and the future remains fairly bleak for many.

In summary, our view is that:

- The used car market in January is usually very stable. This year is likely to be no exception, although probably as a combination of more stock purchases (because most did not buy stock in December as they normally would) and continued lower demand. Retail demand will remain subdued over the short term as the reality of the cost-of-living squeeze continues to make itself felt and concerns start to build over the impact of increasing interest rates on mortgage costs. Used car volumes will continue to slowly increase in the coming months as fleets start to receive replacements for some long overdue vehicles. For most sectors, our short-term forecasts show modest negative movements for the next few months, although this is slightly favourable to typical seasonality, with dealers continuing to pay good money for the best condition cars.
- As mentioned in our customer webinars, the negative economic impact of a potential recession is expected to be outweighed by the reduction in used car supply already guaranteed by the lower new car registrations from the start of the pandemic onwards. Used car prices are not generally correlated with GDP growth, partly because there is a substantial element of core “needs purchases” and also because reductions in consumer confidence and disposable income result in changes of used car buying, rather than preventing it; buyers may turn to older/smaller/higher mileage cars or turn to the used market instead of buying new.
- There are still a significant number 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. It is extremely hard to predict how retail demand will progress through 2023, especially given the complex economic situation. However, we still expect a gradual market adjustment over the next several months or so and not a ‘mirrored’ fall from the earlier high point.
- 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) remain varied and subject to frequent change for many OEMs, but several major manufacturers are now experiencing improvements in supply on some models, which we expect to continue. There remain many cases of derivative specific impacts within the same model.
- One-year-old vehicles will remain in relatively short supply for the foreseeable future. However, once leadtimes for the majority of models reduce, it is expected that consumers will cease to pay a premium for a used vehicle over the new car. However, despite the prolonged shortages of nearly new stock, the trend until recently had been for 3-year-old cars outperforming the 1-year-old market and they did not increase by as large a proportion, therefore deflation is expected to be less than for 3-year-old cars during the market adjustment.
- From the second half of 2023 onwards, we will start to see the positive impact of reduced used car supply as a result of more than 2 million fewer cars registered through the course of the pandemic, particularly from fleets.

Supply side factors

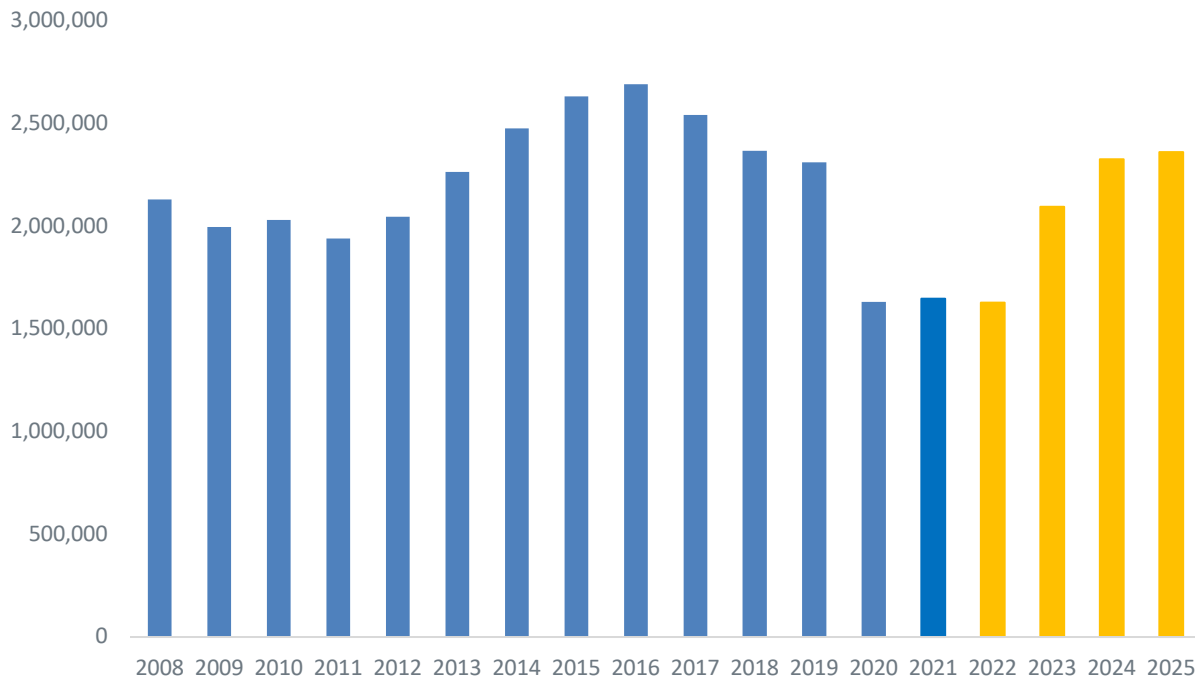
The 2021 forecast for new car registrations from the SMMT started at 1.83 million, reduced in July to 1.820mm and in October revised down to 1.66mm. Our forecast followed a similar trajectory. Final results were 1.65mm – down +1.0% higher than 2020 but -28.8% down on 2019. New car supply issues will 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 2022 was reduced to 1.63 mm earlier in the year, now -1.2% down on 2021. The SMMT forecast reduced to 1.60mm In August and was then further reduced to 1.566mm this month.

Our forecast for 2022 still assumes some element of recovery for some OEMs in the final two months, but also allows for some further supply issues that may occur. The rolling 12-month sales rate is now just under 1.57 mm and

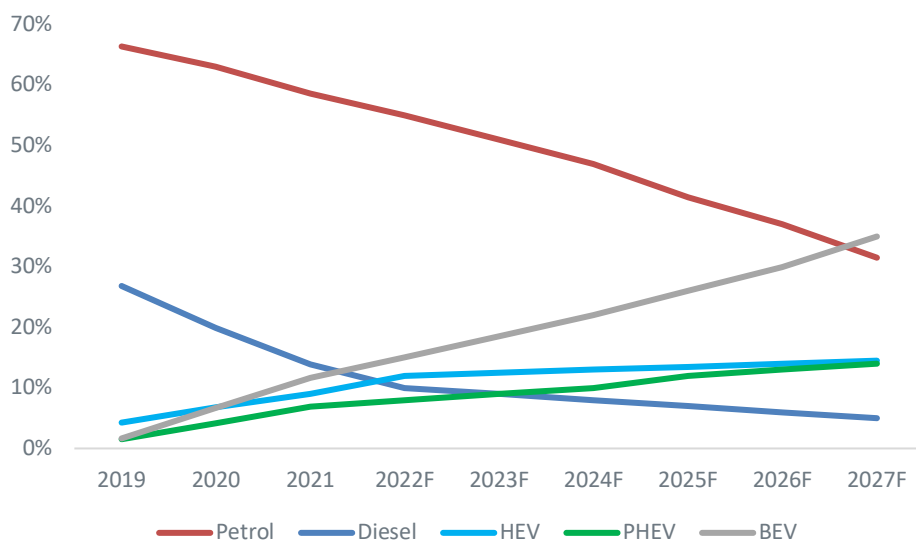
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continues to increase from the low point which was reached in July – the final total is likely to be close to 1.6 million, but much will depend on what can actually be delivered in the final week of the year. Our forecast for 2023 is under review: originally 2.09mm (still almost -10% down on 2019) but likely to reduce, depending on registration data over the next couple of months. 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 between 2014 and 2018.



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 hard-core 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.

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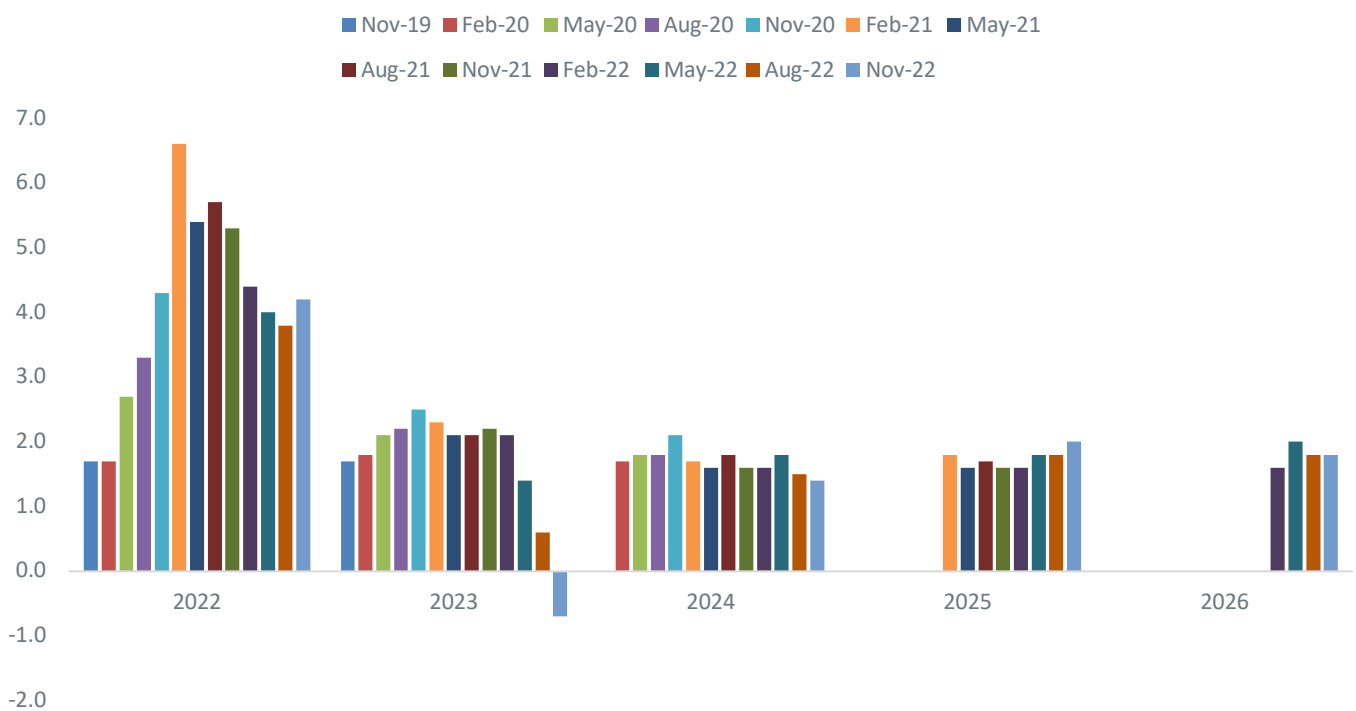
Demand side factors

Latest medium-term independent forecasts for the UK economy were published in November and surprisingly the new forecasts showed an improvement on the outlook for GDP for 2022 (+4.2% vs. +3.8% in August) and a modest downgrade for 2023 (given the circumstances!) of -0.7% compared to +0.6% in August, with 2024 relatively stable at +1.4% from +1.3%. (OBR forecasts are +4.2%, -1.4% and +1.3 respectively). The Bank of England estimate for 2023 is similar to the OBR at -1.5% but assumes deflation decreasing more quickly than the independent forecasts and being back below target by the end of 2024. Longer-term GDP recovery improves in the independent forecasts, with GDP forecast to improve slightly for 2025/6 to +2.0% and +1.8%.

The new independent forecasts therefore continue to imply a shorter and shallower recession than that suggested by the OBR and the Bank of England.

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

Independent GDP Forecasts



The latest independent unemployment forecasts are reasonably flat for the next few years, peaking at 4.4% in 2024, whereas both the OBR and the Bank Of England are more pessimistic, with peaks of 4.9% and 6.5% respectively.

Inflation has decreased to +10.4% (from +11.1% last month) and the BoE do not now expect it to come back below target until at least 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. As expected, base rates increased by a further 50 basis points to 3.5% in December and will increase again in early 2023, but are likely to be close to the peak. Although they are still forecast to remain low by historical standards, today's ratio of household debt to wages means that serious problems will be caused at a much lower base rate than was true in the past. There are also 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.

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The Bank of England survey shows a continued trend for precautionary saving, but it is very unclear whether amounts built up during the pandemic are now being spent to fend off the cost-of-living situation or whether continued saving will add to what has already been accumulated, with no intention of spending until forced to do so.

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.

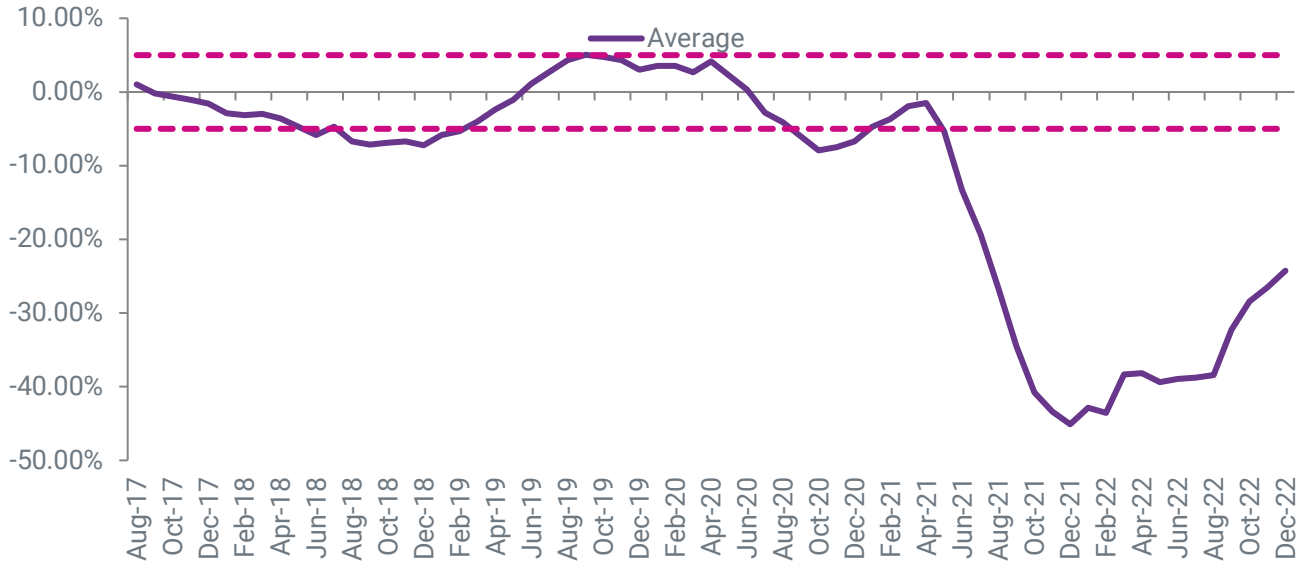
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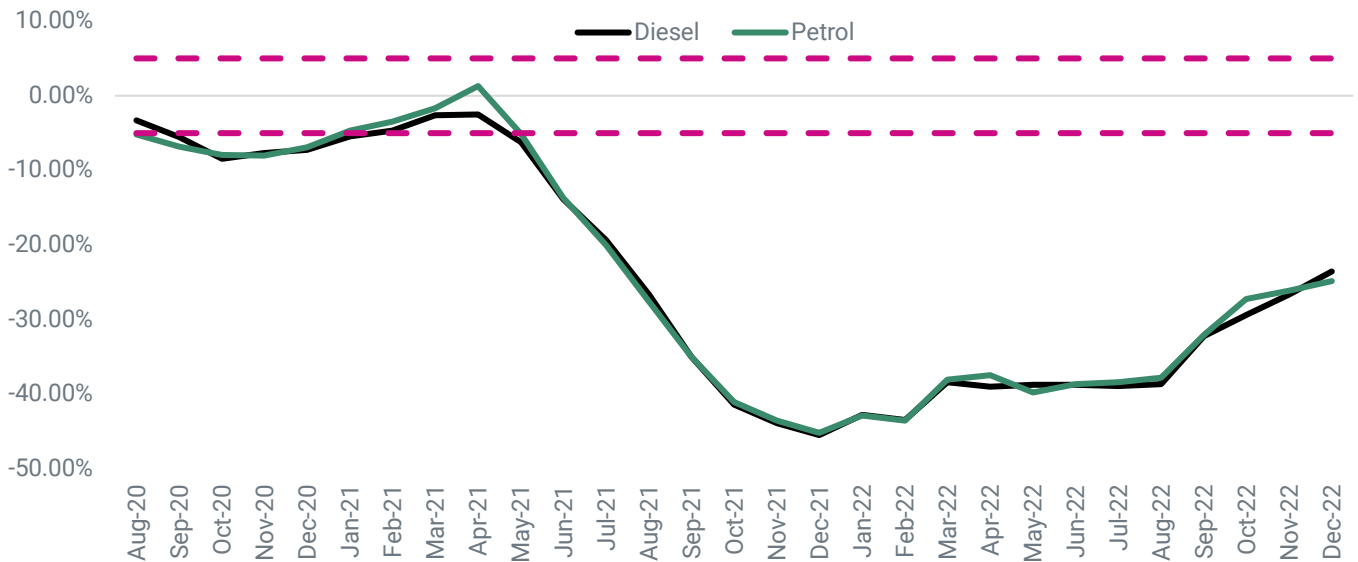
12-month results

Since measurement started our 12 month used forecasts have averaged -7.6% less than used values across all vehicle ids, and the most recent results show December 2021 12/20 gold book forecasts being -24.3% less than December 2022 12/20 used values (unsurprising following record breaking used value increases in recent months).

Overall results:



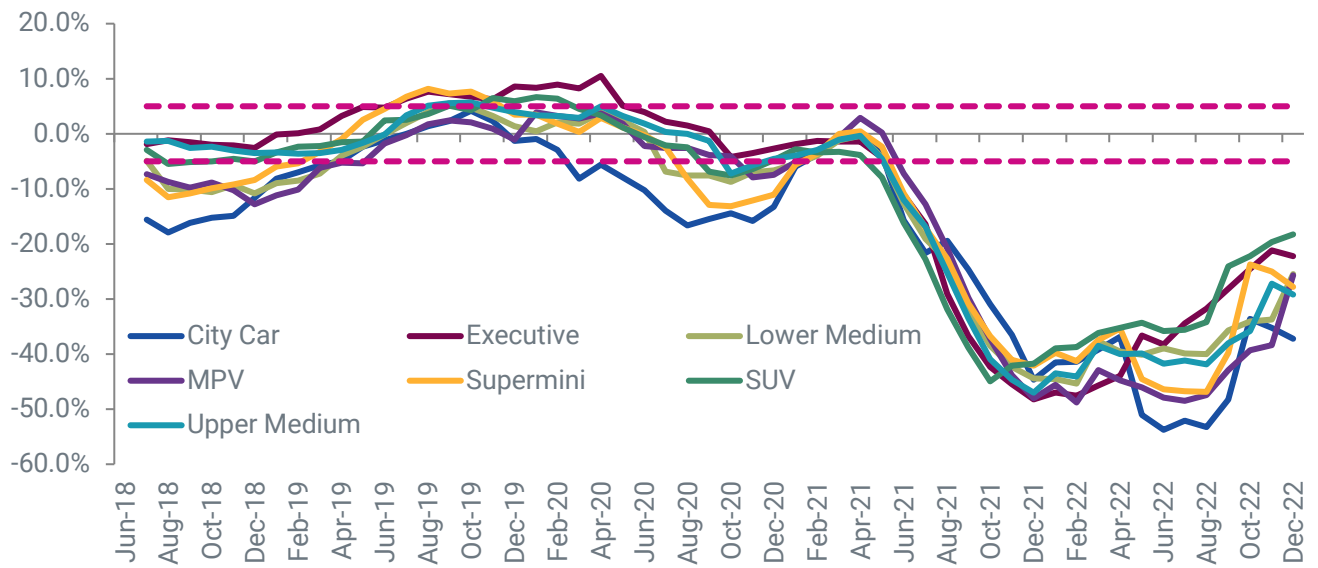
Fuel type results



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Sector results



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

December 22	Average of Diff (%)
City Car	-37.2%
Executive	-22.3%
Lower Medium	-25.5%
MPV	-25.7%
Supermini	-27.8%
SUV	-18.3%
Upper Medium	-29.2%
Grand Total	-24.3%

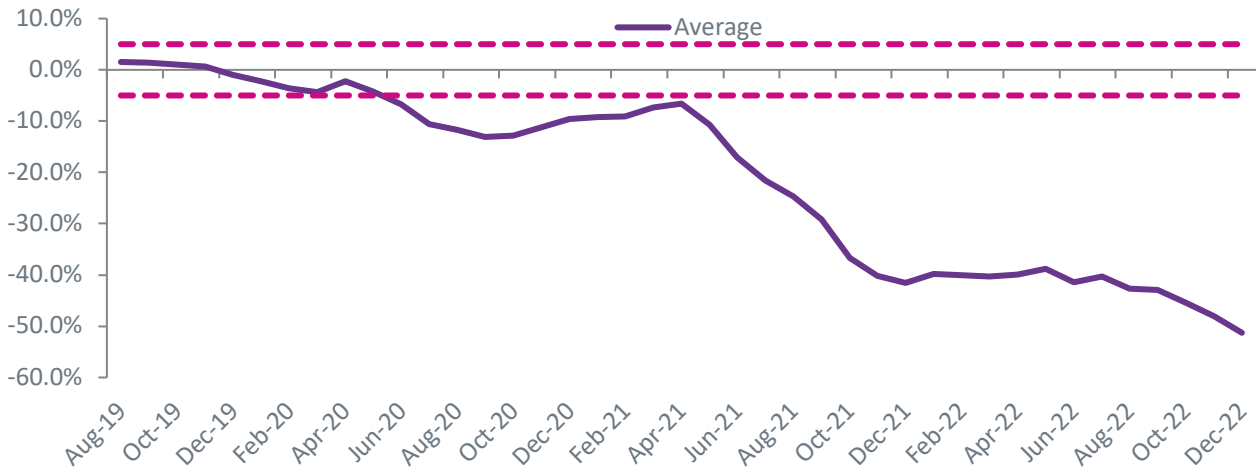
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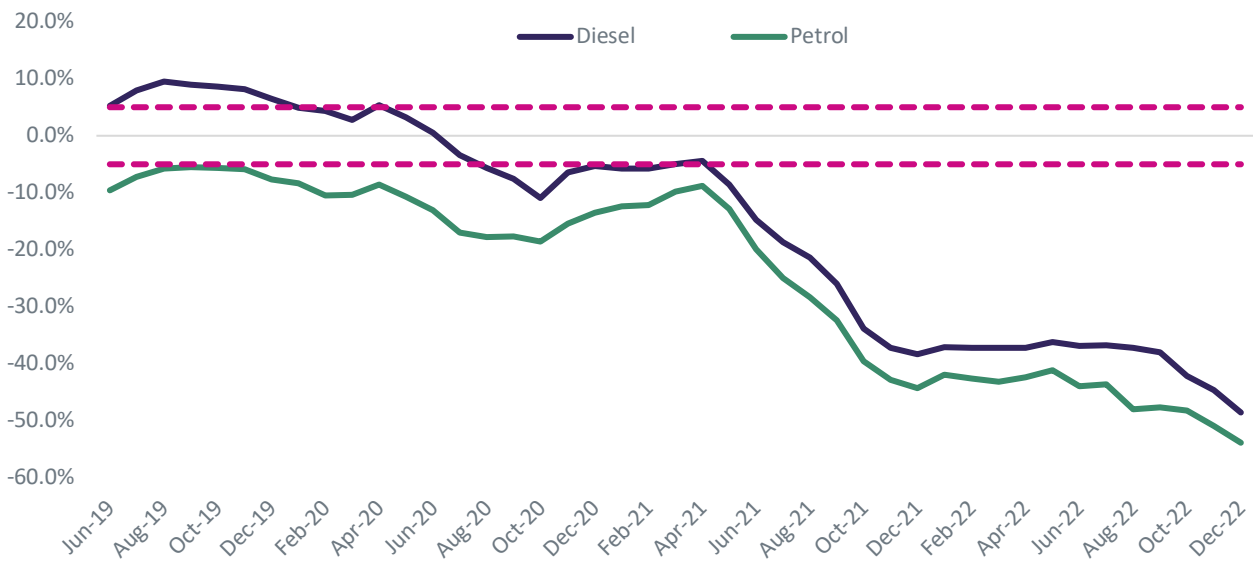
36-month results

Since measurement started our 36 month used forecasts have averaged -13.6% less than used values across all vehicle ids, and the most recent results show December 2019 36/60 gold book forecasts being -51.3% less than December 2022 36/60 used values.

Overall results:



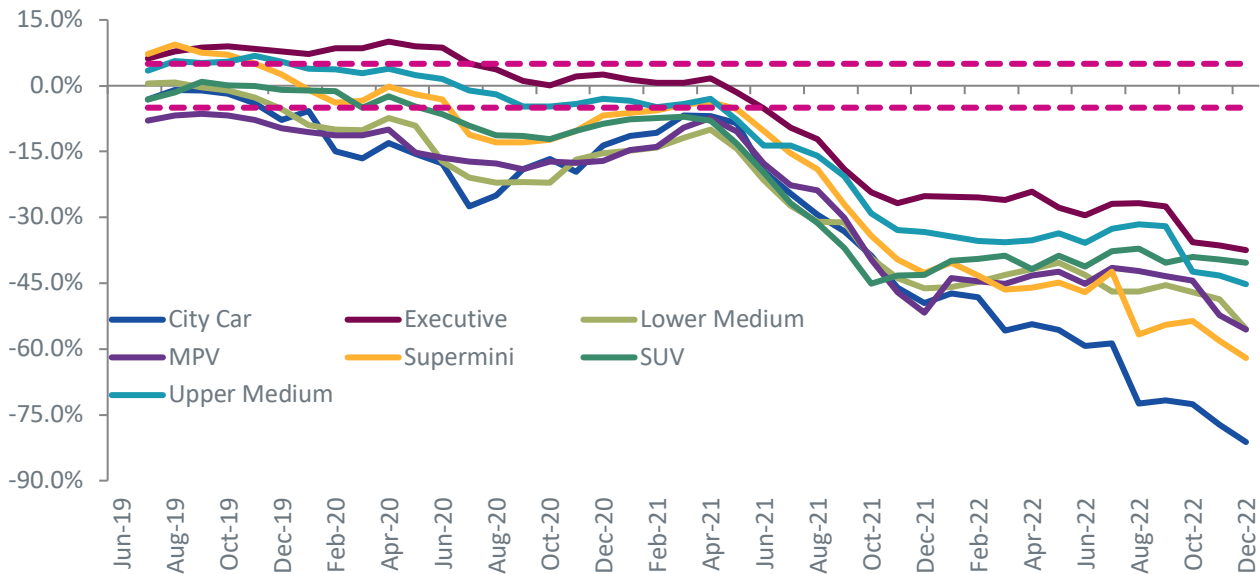
Fuel type results:



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Sector results:



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

December 22	Average of Diff (%)
City Car	-81.2%
Executive	-37.5%
Lower Medium	-55.4%
MPV	-55.6%
Supermini	-62.0%
SUV	-40.3%
Upper Medium	-45.2%
Grand Total	-51.3%

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 interproduct analysis with our used value colleagues exactly as before.

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Short term forecast (0-12 months)

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

Forecast daily feed

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

Forecast output

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

All forecast values include VAT and relate to a cap hpi clean condition and in a desirable colour. Values are for a "naked" vehicle and do not reflect any added option content.

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 2023/2024

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
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	
Oct-23	SUV			
Nov-23	City Car	Supermini		
Dec-23	Upper Medium	Executive	Large Executive	Luxury Executive
Jan-24	Lower Medium	MPV		