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With a French electric market under tension, what is the short- and medium-term outlook for residual values of electric vehicles?





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Whereas in 2024, used car prices in France had fallen significantly for all energy sources, since the start of 2025, used car prices seem to be starting to ease, with the exception of prices for plug-in hybrids (PHEVs) and electric vehicles (BEVs), which continue to fall significantly. A number of tax measures were passed at the start of the year as part of the 2025 Finance Bill, and these will have a significant impact on residual values.

At a time when the French electric vehicle market has never been under such pressure, when manufacturers, leasers and distributors are suffering significant losses on returns from long-term leases of electric vehicles, and when the pace of growth in demand remains very slow, it is clearly time to ask ourselves what the short- and medium-term prospects are for residual values of electric vehicles, in order to position ourselves and anticipate the difficulties of the coming months as effectively as possible.

Contents



| 1. Current state of the French used car market Overall price stability for all energy sources, with the exception of electric and plug-in hybrid vehicles | 4 |
|--|-------|
| | 5-6 |
| 2. Focus on the second-hand market for electric vehicles The market for electric vehicles is suffering from a very serious imbalance. | 7 |
| The market for electric vehicles is suffering from a very serious imbalance due to an overabundance of supply compared with still limited demand | 8 |
| Second-hand electric vehicles are less attractive than combustion or non-rechargeable hybrid vehicles | 9-11 |
| 3. The French electric market compared with its neighbours Electric vehicles are least attractive in France and Spain, while they are the most attractive in the UK | 12 |
| | 13-14 |
| 4. Short- and medium-term outlook for residual values | 15 |
| • A new electric vehicle sells at the same price as a combustion engine vehicle | 16-1 |
| Used-car stocks will continue to grow rapidly over the coming months | 18 |
| • Government supply policy will have a negative impact on electric vehicle RVs | 19-22 |
| Forcing fleets to acquire electric vehicles will have a severe impact on residual values if demand does not increase further | 22 |
| Very high discounts on new electric vehicles have a major impact on used-car prices | 23 |
| Falling List price for electric vehicles have had a negative impact on used vehicles residual value | 24 |
| The technological developments to come will have a negative impact on the residual values of electric vehicles | 25-26 |
| Conclusion | 27 |



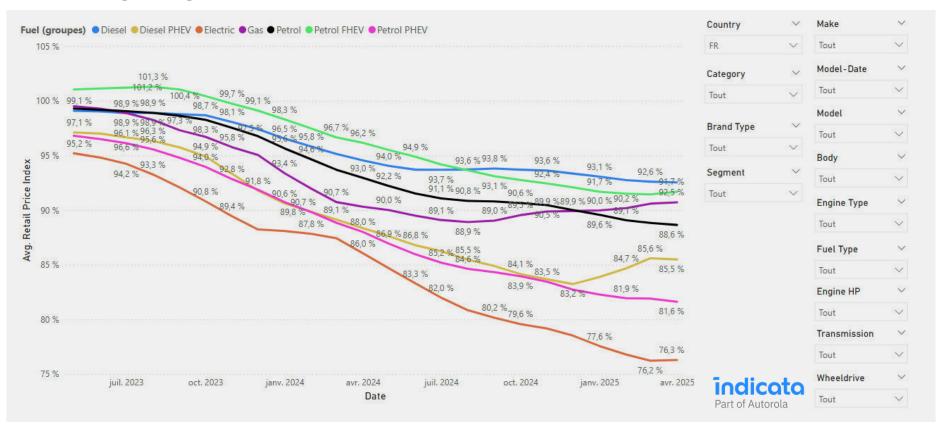
1. Current state of the French used car market

Overall price stability for all energies, with the exception of electric and plug-in hybrids vehicles

Looking at changes in the Indicata price index in France for vehicles with an average age of 36 months and 60,000 km, while prices for diesel, petrol and non-rechargeable hybrid (FHEV) vehicles have remained fairly stable since January, we are seeing a steady fall in prices for plug-in hybrids and especially electric vehicles (-9.8% in 1 year and -18.9% in 2 years).

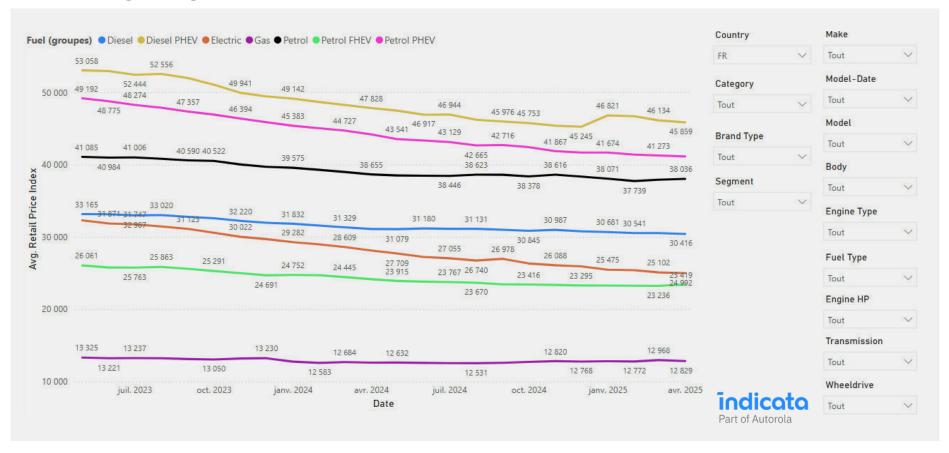
When we look at the market in monetary terms, this relative stability in prices since September 2024 is confirmed for diesel (- \in 584), petrol (- \in 568), LPG (+ \in 229) and non-rechargeable hybrid (- \in 27) vehicles. On the other hand, the falls are actually more marked for plug-in hybrids (- \in 1,578) and electric vehicles (- \in 1,986).

Retail Price (weighted. avg.) Index 100 = Jan 23 - AT,BE,DK,NE,PT,SE



1. Current state of the French used car market

Retail Price (weighted. avg.) - € ZONE



Looking at the situation for electric vehicles and plug-in hybrids, over 1 year, average prices for electric vehicles across all segments have fallen by $\in 3,135$ and those for plug-in hybrids by $\in 3,047$. In comparison, prices for non-rechargeable hybrid vehicles, which are currently very popular with used car customers, have fallen by just $\in 744$ in 1 year.

These figures relate only to vehicles aged between 24 and 48 months. For several months now, however, vehicles aged between 18 and 24 months have been much more affected by price cuts than older vehicles, which has inevitably had an impact on vehicles aged 36 months and over through a knock-on effect.



The market for electric vehicles is suffering from a very serious imbalance, due to an overabundance of supply compared with still limited demand

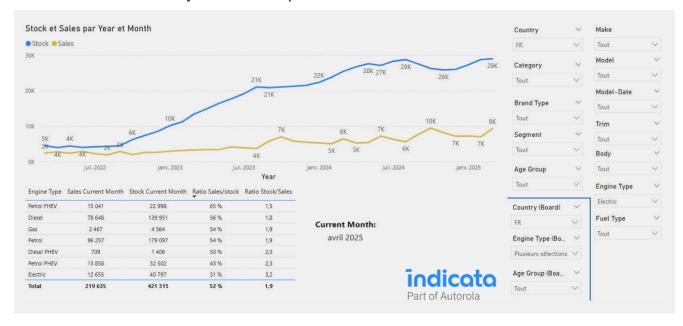
Let's take a closer look at some key components of the used-car market to understand the results and the potential future impact on residual values. If we look at the trend in stocks compared with the trend in sales of electric vehicles, it is easy to see that the price falls observed can be explained by an oversupply in the face of limited demand.

Electric vehicle stocks reached a new peak in March 2025, with 29,000 vehicles in stock. To find a comparable stock level, we have to go back to August 2024, which is traditionally a less favourable month for vehicle sales, due to the summer holidays. While stocks of electric vehicles have been rising steadily since November 2025 (+3,130 vehicles in 5 months, i.e. +12%), sales are increasing at a much slower rate, reaching 9,300 vehicles in March, a performance comparable to October 2024. In practical terms, this means that supply is far outstripping demand, which explains the significant price falls observed.

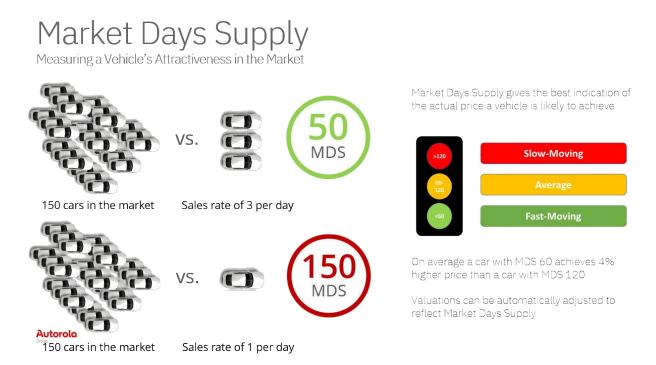
In comparison, diesel, petrol, LPG and non-rechargeable hybrids, whose prices remain relatively stable, have a stock level over the current month of between 1.5 times (for non-rechargeable hybrids) and 1.9 times demand, while for electric vehicles, stocks are 3.2 times higher than demand. And when we look more specifically at electric cars less than 24 months old, stock levels are 3.6 times higher than demand, while for vehicles between 24 and 48 months old, stock levels are "only" 2.9 times higher than demand.

As a result, "this imbalance between supply and demand, to the detriment of demand, will continue to drive down prices of electric cars over the coming months. On the one hand, this will be due to the spread of recent used cars to older ones, and on the other, because at the same time, stocks of electric vehicles on the used car market will continue to increase, due to the return to the used car market of sales of electric new cars, which have been rising steadily since 2021," warns Yoann Taitz, Regional Head of Forecast and Market Expert at Indicata.

Sales & Stock Volumes by Month - European Market



Second-hand electric vehicles are less attractive than combustion or non-rechargeable hybrid vehicles



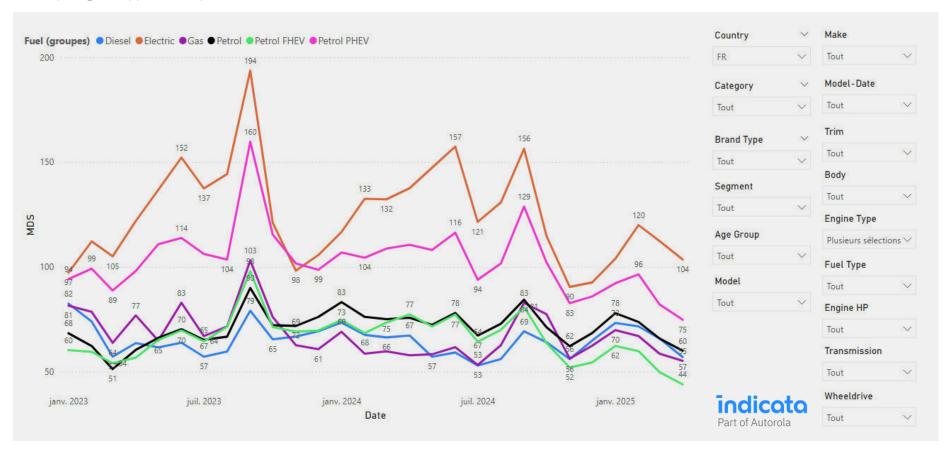
To determine the attractiveness of a vehicle on the second-hand market, Indicata uses the concept of "Market Days Supply" or MDS, which considers the number of vehicles sold over a 45-day cycle in relation to the total supply. An MDS of less than 60 days indicates good attractiveness, while an MDS of more than 120 days indicates poor attractiveness.

Used electric vehicles, with an MDS of 104 days, are much less attractive than used internal combustion vehicles and therefore have a lower stock turnover, since the MDS of internal combustion and non-rechargeable hybrid vehicles is less than 60 days, and is 57 days for diesel (including MHEV

diesel vehicles), 60 days for petrol (including MHEV petrol vehicles), 55 days for LPG vehicles and 44 days for non-rechargeable hybrid vehicles. Yoann Taitz points out that "vehicles with an MDS of less than 60 days are traded in at prices 4% higher than those with an MDS of more than 120 days". This lesser attractiveness of electric vehicles can be explained by too high transaction prices in relation to the use to which the vehicles are put, an overabundance of stocks in the face of as yet limited demand, and also by the significant and frequent technological developments that have taken place in recent years, particularly in terms of improving vehicle range.

The improvement in the attractiveness of used electric vehicles since February 2025 (fall in MDS) is the result of price reductions observed on the used vehicle market. "Given the significant gap in attractiveness that currently exists between electric vehicles and internal combustion vehicles on the second-hand market, to the disadvantage of electric vehicles, we can expect to see significant price reductions in the coming months for electric vehicles, but also as a result of the spread effect, since electric vehicles less than 24 months old suffer from even lower attractiveness, a sign of far too high transaction prices," according to Yoann Taitz.

MDS by Engine Type - European Market



When we look at the different age groups, we can notice that electric vehicles under 2 years old, as well as vehicles between 6 and 8 years old, have higher MDS than other age categories, but not for the same reasons.

While the lack of appeal for recent vehicles can be explained by too high transaction prices and an overabundance of supply on the used car market, for vehicles that are 6 to 8 years old, the situation can be explained above all by the various technological developments that have taken place on the electric vehicle market in recent years, leading in particular to a significant improvement in range.

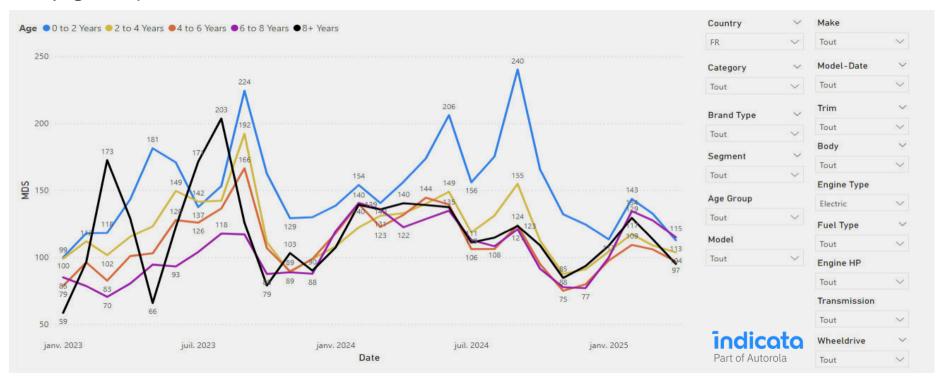
In the case of internal combustion vehicles, technological improvements have a fairly positive impact on residual values, since they favour the new vehicle without putting the old one at a disadvantage in terms of use. In the case of electric vehicles, any technological improvement, particularly in terms of the vehicle's total range, has a negative impact on residual values, since it actually degrades the performance of older vehicles compared with new ones. According to Yoann Taitz, "as soon as a new generation of electric vehicles offers a significant improvement

in range for a very similar new price, the second-hand buyer is going to try to negotiate the price of the second-hand vehicle down further, since with less range this electric vehicle will inevitably have a lower resale price in the years to come, range being a key element in the residual value of an electric vehicle. This is what we call the smartphone effect".

In the case of recent vehicles, which are less attractive for the reasons mentioned above, prices will have to be adjusted further downwards to improve the competitiveness of these vehicles on the used vehicle market, which, through a diffusion effect, will have an impact on residual values at 36, 48, 60 months and beyond, suivants..., "based on the principle that an older vehicle cannot be sold at a higher price than a younger vehicle".

It should be noted that while plug-in hybrids are only marginally in demand on the used car market, their appeal, with an MDS of 75, is still much greater than that of electric vehicles.

MDS by Age - European Market





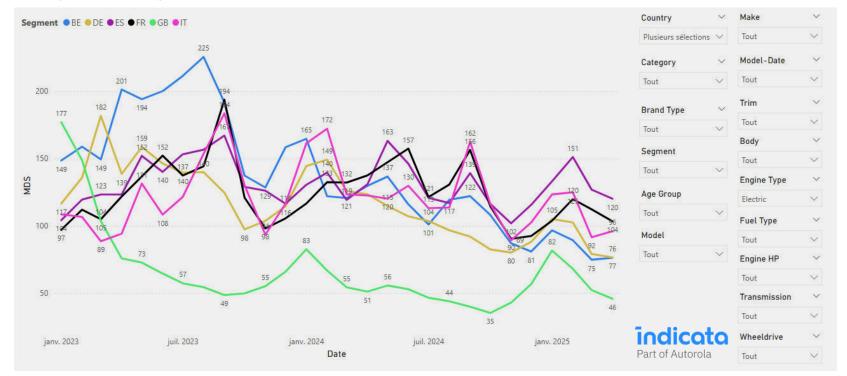
3. The French electric market compared with its neighbours

Electric vehicles are least attractive in France and Spain, while they are the most attractive in the UK

Compared with its direct neighbours, electric vehicles are least attractive in France and Spain. "While in Spain, the lack of infrastructure, which is still underdeveloped given the size of the country, is one of the reasons why electric vehicles are not very attractive, this is clearly not the case in France, where infrastructure has developed significantly in recent years. In France, the main reason is that transaction prices are too high, which doesn't encourage demand for new cars," says Yoann Taitz.

Conversely, it is in the UK that electric vehicles are the most attractive, with an MDS of 46. However, when we look at used-vehicle prices, we see that the attractiveness of electric vehicles in the UK comes at a price.

MDS by Brand - European Market

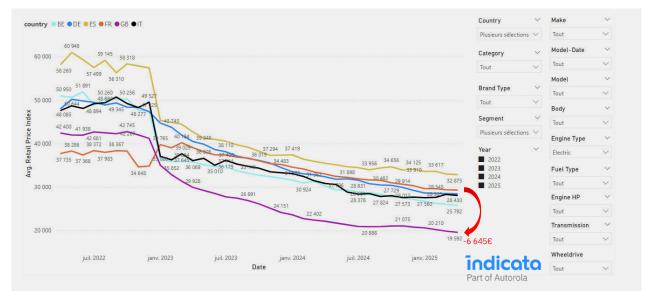


3. The French electric market compared with its neighbours

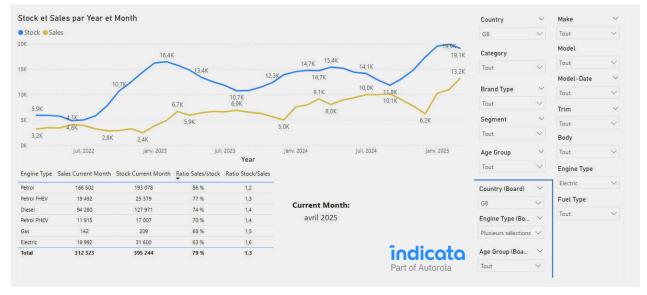
If we compare transaction prices for electric C-SUVs and D-SUVs aged between 24 and 48 months and with between 40,000 and 80,000km in France with those in the UK, we see a very significant price differential, with the average price in France standing at €29,310 compared with €22,665 in the UK, i.e. €6,645 less than in France. It is at these prices that electric vehicles remain attractive on the UK used vehicle market and that stocks remain in line with demand, since stocks are only 1.6 times demand (compared with 3.2 times in France), which has effectively stabilised prices for several months now.

Let's keep in mind, that UK has gradually introduced, since 2020, various incentives and constraints to force company fleets, which accounted for a large proportion of CO2 emissions, to switch massively to electric vehicles. This explains the situation we are currently seeing. However, as we will see a little later, France is doing exactly the same thing. Will the same causes produce the same effects? Most certainly...

Retail Price (weighted avg.) - € ZONE



Sales & Stock Volumes by Month - European Market





Is there a risk that second-hand prices in France will fall to the level seen in the UK? According to Yoann Taitz, "It's very likely that prices for electric vehicles in France will continue to fall sharply over the coming months, because stocks are only going to increase and demand is not developing at the same rate. However, an important difference with the UK is that right-hand-drive vehicles registered in the UK can potentially only be exported to Ireland, whereas the European market is more open. As a result, while prices will certainly fall, it is reasonable to assume that the pressure on prices in France will be slightly less than in the UK".

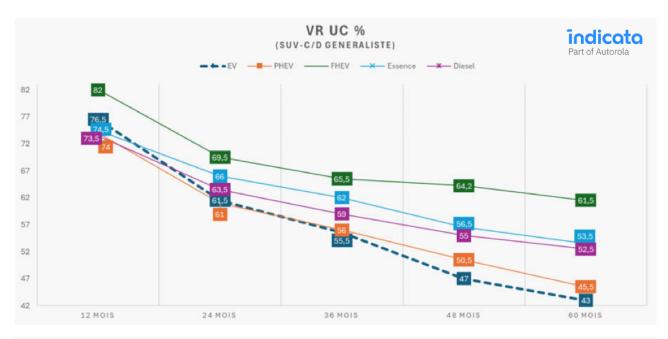
A new electric vehicle sells at the same price as a combustion engine vehicle

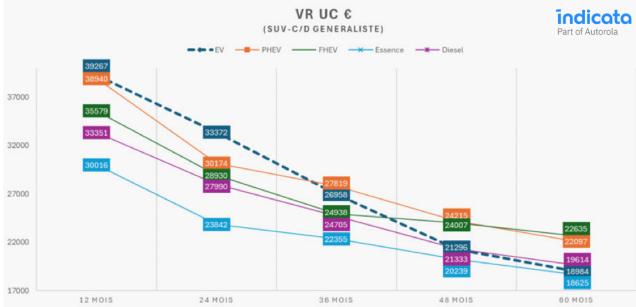
Before looking in more detail at perspectives for electric cars in the months ahead, it is interesting to note that parity in terms of Euros on the used car market between electric and combustion vehicles has already been achieved at 48 months of age, while the list prices of electric vehicles are on average between €8,000 and €10,000 higher than petrol or diesel combustion vehicles.

Let's take the mainstream C-SUV & D-SUV segment as an example (VW ID4, Renault Scenic e-Tech, Peugeot e3008, Hyundai Ioniq 5, Kia EV6, etc.).

While at 12 months, all energies are more or less at the same level in terms of VR%, between 74% and 76% of VR, there has been a much more marked depreciation for electric vehicles. In terms of value, at 48 months, an electric SUV is trading at the price of a diesel vehicle, while at 60 months, the same electric SUV is trading at the price of a petrol vehicle. "Second-hand buyers are therefore not prepared to pay more for an electric vehicle than for a petrol or diesel one, which means that the depreciation of electric vehicles is much higher than that of internal combustion vehicles," confirms Yoann Taitz.







Although, from a technical point of view, 48 and 60 month old electric vehicles do not have exactly the same range as more recent electric vehicles, the volume of electric vehicles on the used car market is such, particularly for vehicles less than 36 months old, that better ranges will not make it possible to compensate for the volumes, to hope for higher transaction prices.

As a result of factors related to the structure of the used vehicle market itself, such as high used vehicle stocks and low attractiveness of used electric vehicles, used vehicle prices will fall further in the coming months. However, price falls will also be impacted by factors related to the new car market, which will in turn impact the used car market, as well as by external factors such as recent political and tax decisions.

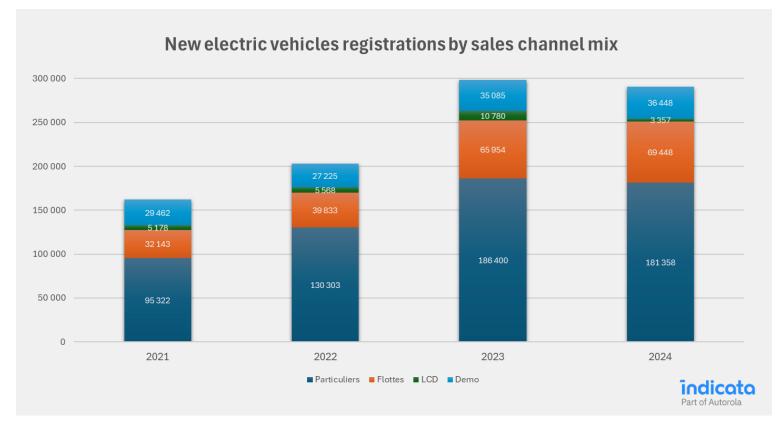
Used-car stocks will continue to grow rapidly over the coming months

New vehicles stocks will continue to grow, due in particular to the significant increase in electric vehicle registrations since 2021. Depending on the sales channel (private individuals, fleets, short-term rentals, demo cars), not all new vehicles return to the used vehicle market at the same time.

For example, the used vehicle market is currently recovering all the vehicles sold to fleets 36 to 48 months ago (average holding period observed for fleet leasing contracts), i.e. vehicles sold in 2021 and 2022. Between 2021 and 2022, fleet sales increased by 20%, but still represented only 40,000 vehicles. By way of comparison, fleet sales represented 66,000 vehicles in 2023 and 70,000 vehicles in 2024, i.e. the same number of vehicles

that will enter the used vehicle market as of 2026. To this must be added sales to private individuals, mainly in the form of leases for electric vehicles, which will return to the used vehicle market between 48 and 60 months (the average holding period observed for leases to private individuals), not to mention the volumes from social leasing in 2024, for which used vehicles were greatly overvalued and which will return in 18 months'

time. Sales to short-term leasers return to the used vehicle market 12 to 24 months after registration, while demo cars return to the used vehicle market 3 to 9 months after registration. In view of the current market, we can therefore anticipate that stocks of used electric vehicles will increase much faster than used vehicle sales.



Government supply policy will have a negative impact on electric vehicle RVs

The numerous tax changes introduced in recent weeks will have a direct and indirect negative impact on residual values. The economic uncertainty and wait-and-see attitude of consumers generated by these measures has an indirect negative impact on residual values. As a result, private and fleet customers are postponing their car purchases until better times, which is helping to increase stocks of new and used vehicles, since demand is weaker, while at the same time stocks are tending to increase further. However, some of the tax measures announced by the public authorities will, for the most part, have a direct negative impact on residual values, on top of the negative effects generated by indirect impacts.

At European level, the CAFE regulation, despite the flexibility proposals announced by the European Parliament but not yet officially voted on, is making a negative contribution to the fall in residual values of electric vehicles. To avoid paying fines, manufacturers will have to register a certain number of so-called "non-polluting" vehicles to compensate for the registration of more polluting vehicles. In practice, France would need to achieve a market share of around 25% for electric cars and vans in order to avoid paying heavy fines. Given that the market share of electric vehicles has plateaued at between 16% and 18% for several months now, this looks like being a complicated task. Admittedly, the European

Commission has proposed that the targets be smoothed out over 3 years, allowing a poor performance in 2025 to be made up in 2026 and 2027. However, even if the targets are smoothed out, they will still have to be met by 2027, which, given the current situation, amounts to "pushing back the sandpit". Thus, if demand does not develop further in the months and years to come, it is a safe bet that new vehicle volumes will be artificially generated through tactical registrations, i.e. demo cars and sales to short-term rentals, which are the channels that destroy the most value, and which will have a direct impact on new vehicle sales aged between 6 and 18 months. The greater the volumes that return to the used vehicle market at recent ages, the more negative the impact will be on all new vehicles, at these recent ages and, through a diffusion effect, on all new vehicles during their entire life cycle.





As far as France is concerned, most of the measures adopted are aimed at developing the supply of electric vehicles on the used car market, rather than stimulating demand, which is what is needed given the current state of the market. While at first sight the reduction in the bonus from €4,000 to €2,000 could have a positive impact on residual value, it turns out that the impact is actually negative. In fact, the bonus has a direct impact on the second-hand price of the vehicle, acting as a disguised discount on the price of the new car. Second-hand buyers are perfectly aware of this 'existing discount', and will therefore take it into account when negotiating the new-vehicle price, as the starting point for determining the vehicle's new value (list price minus the bonus). In the end, therefore, the bonus leads to a reduction in the %RV, since the %RV is simply the ratio between the used car price and the original list price excluding the bonus. But while the used car market looks mainly at the €RV, since the used car buyer is buying a price and not a percentage, the %RV is very important in leasing offers, since the %RV, which is nothing other than the depreciation of the vehicle, accounts for 60% of the rent. Reducing the amount of the bonus therefore has a positive impact on %RV. However, this is only true in the case of a mature market that does not require financial incentives to develop. However, the electric vehicle market is not mature and still requires

financial incentives to develop, because of too high prices. The direct consequence of the reduction in the bonus has therefore been an increase in trade discounts on new vehicles to compensate for the financial loss of the bonus. These discounts were added to the already high discounts applied before the bonus was adjusted, which ultimately had a negative impact on new vehicle sales. It should also be noted that the bonus has been abolished in its entirety for fleets, while at the same time they are faced with ever-greater constraints when it comes to acquiring electric vehicles.

At the same time, the malus has been increased on vehicles deemed to be polluting, which will have a positive impact on the RVs of the vehicles concerned, or at least encourage a degree of stability in RVs, in the sense that second-hand buyers, who are still mainly attracted by these vehicles, will turn away even more from new vehicles subject to malus of varying levels, in order to buy used vehicles exempt from the malus. This will boost demand for second-hand cars, while at the same time supply from the new car market will tend to shrink. Consequently, the more favourable the relationship between supply and demand becomes, the more positive the impact on used cars will be.

However, to limit the malus on new vehicles, buyers may be tempted to buy vehicles with lower trim levels, and to avoid certain options that would make the vehicle more heavy, such as a sunroof or massaging seats. In the used car market, however, buyers tend to prefer higher trim levels, and certain options such as a sunroof, for example, fetch a very high price. Increasing the number of less well-equipped vehicles on the used car market, and therefore potentially less in demand, will have a more negative impact on the residual values of these vehicles. To illustrate this point, let's look at what happened a few years ago with D-segment 'road

cars' (such as the Peugeot 508, VW Passat or BMW 3 Series). The D-segment is, and always has been, a segment driven very largely by fleet sales and very little by sales to private individuals, since less than 15% of private buyers were interested in these vehicles. As a result, very few second-hand buyers, a market 98% of which is made up of private individuals, were interested in these vehicles. In the new vehicle market, fleets favoured engines between 110 and 120hp, as they are less taxed. These vehicles therefore accounted for 70% of the D-segment vehicles available on the used car market. The few private individuals and used car

buyers interested in these vehicles, on the other hand, favoured vehicles with between 150 and 160hp engines. The result of this imbalance between supply and demand was that the 110 to 120hp road cars, over-represented on the used market, had very low RVs, while the more powerful road cars, much less represented on the used market, had much higher RVs. The risk here is that the same thing could potentially happen with less well-equipped vehicles, because the current tax system is widening the gap between the new car market and the expectations of the used car market, forgetting that every new car sooner or later becomes a used car.



Forcing fleets to acquire electric vehicles will have a severe impact on residual values if demand does not increase further

As far as fleets are concerned, everything is being done to force them to acquire electric vehicles, despite measures that are sometimes contradictory. As far as the TVU (formerly TVS Company car) is concerned, the exemption for hybrid vehicles has been abolished, and the regional exemption from the vehicle registration tax for "clean" vehicles has also been abolished, except in the Hauts de France region.

The Finance Bill passed in February 2025 also announces the introduction of a tax on the greening of fleets. Companies with more than 100 vehicles in their fleets and less than 15% low-emission vehicles, mainly electric or plug-in hybrids, will now be subject to a fine of €2,000 per missing low-emission vehicle. This amount will rise to €4,000 in 2026 and €5,000 in 2027. To support this measure, a number of incentives have been introduced, such as exemption from the company car tax for electric vehicles and specific depreciation rules for batteries.

In addition, the weight-based penalty has been revised, with the abolition of the allowance for hybrid vehicles and, in return, the exemption for electric vehicles, while plug-in hybrid vehicles benefit from a 200kg allowance.

The picture would not be complete without mentioning the changes announced a few weeks ago to the rules for calculating benefits in kind for company vehicles, after more than 20 years of stability. These changes penalise non-electric vehicles very heavily, with a significant increase in the flat-rate assessment percentages for vehicles made available from 1st of February 2025. The immediate consequence for employees is an increase in the tax and social security base, and therefore potentially more tax and a lower net salary, and for companies, an increase in employers' social security contributions on this benefit. As far as electric vehicles are concerned. the favourable regime has been maintained but transformed, since the allowance has been increased from 50% to 70%, with a significant increase in the annual ceiling, thus preserving the attractiveness of electric vehicles, provided they have a favourable environmental score allowing them to benefit from an ecological bonus.

In practice, all the tax changes affecting

businesses, in addition to creating a great deal of uncertainty, which will result in a slowdown in car purchases, will force fleets to acquire more electric vehicles, which will find their way onto the used-car market 36 to 48 months later. A closer look at new vehicle registrations for fleets since 2021 shows that they increased by 24% between 2021 and 2022, and by 66% between 2022 and 2023. This will further increase the supply of electric vehicles on the used vehicle market in the coming years, and therefore potentially have a negative impact on residual values, if demand does not develop more quickly.

However, when companies are forced to purchase electric vehicles, they are in no way assuming the inherent residual value risk, which is borne entirely by manufacturers, leasers, manufacturers' financial captives or dealers. It is important to point out that, in order to offer competitive leasing deals, the residual values used in current offers are already much higher than actual values of electric vehicles on the used vehicle market, which is already leading to significant losses when these vehicles are leased back, and will continue to do so in the years to come.

Very high discounts on new electric vehicles have a major impact on used-car prices



Manufacturers need to sell more and more new electric vehicles to meet the CAFE standard and French legislative requirements (LOM law). However, these same manufacturers have been facing increasing difficulties in selling electric vehicles for several months now, and are consequently faced with stocks of new vehicles on the factory forecourts that need to be sold "at all costs". Added to this is the need to compensate for the loss of the electric vehicle bonus at the end of 2024, and the fact that electric vehicles are considered too expensive by consumers. This explains the emergence of ever-higher discounts on new electric vehicles; discounts that naturally have a direct negative impact on second-hand prices, since a second-hand vehicle cannot be sold for more than a new one.

In addition to the ever-increasing discounts used to sell new electric vehicles, it is also interesting to note that the discounts on electric vehicles are much higher than those on combustion engine vehicles, which clearly demonstrates the lack of price appeal of electric vehicles, due to an excessively high list price. The graph below shows the maximum discounts observed in March 2025 for 3 electric vehicles and their internal combustion equivalent. It can be seen that for these 3 vehicles, which are representative of their segment, the maximum discount for the electric version is, on average, 10% higher than for the equivalent internal combustion version.

These discounts, which appear to be very high on new electric vehicles, have a major impact on used vehicle transaction prices. As these discounts become increasingly visible and explicit on websites, used vehicle buyers are more likely to negotiate their used vehicle purchase knowing the existing discounts on new vehicles. The discounts offered by certain manufacturers, whose large volumes have an impact on the market, pull the whole market down, even for manufacturers who try to remain rather virtuous in this area and who are then obliged to respond with larger discounts to sell new vehicles. Given that a used vehicle cannot be sold at a higher price than a new one, and that the average depreciation acceptable to used car buyers for electric vehicles is 25 to 30% over a 12-month period, these substantial discounts on new vehicles are driving down used car prices over 12 months, which, through a knock-on effect, are then gradually being passed on to older vehicles.



Falling list prices for electric vehicles have had a negative impact on used vehicle residual values

Since several months, manufacturers are lowering list prices on certain electric models, in order to make them more competitive. However, depending on the aggressiveness of the price cuts, the impact on residual values will be more or less significant, and depending on the volumes that these models represent on the market, there is a risk of dragging the whole electric market down.

Note, for example, Stellantis' recent decision to significantly reduce the prices of the e-208, e-2008 and e-308 by making the Style trim €2,000 cheaper. Although this only concerns the Style trim, the impact will be felt across all the trim levels of the models concerned, and the Style trim is also likely have lower residual values than the other trim levels, because of the potential volume that will be found on the used car market. Other manufacturers, such as Ford and Volvo, have also announced new significant reductions in their list prices after prices reductions in 2024.

The impact on used cars is therefore immediate, since, as has already been said, a used car cannot be sold at a higher price than a new car. The drop in the price of a new vehicle will therefore lead directly

to a drop in the price of used vehicles and to future losses on leased vehicles that will return to the used car market at a later date, where the trade-in price will be even more out of line with reality.

While this has a negative impact on second-hand residual values, the impact on the future values of new vehicles affected by these price cuts is rather positive, in the sense that this action will make the percentage residual value used in lease offers more competitive. However, making major adjustments to list prices on a recurring basis, as Tesla has done for many months, has a negative impact, including on future residual values. What's more, this is likely to increase uncertainty among customers, who, in the hope of further list price cuts, and therefore lower new car prices, could then postpone their purchases, thus creating a wait-and-see attitude in the market.

The technological developments to come will have a negative impact on the residual values of electric vehicles

We have seen in the past that, contrary to what happens with combustion engine vehicles, technological advances affecting electric vehicles have a negative impact on the electric vehicles currently on the used-car market. The impact is negative because the technological advances that affect the performance of the new vehicle effectively render its predecessor obsolete, since in most cases the technological advances that have been made in recent years and will be made in the years to come concern an essential aspect of the vehicle's residual value, which is the autonomy of the electric vehicle. As soon as a new generation of vehicles has a better range, the vehicles on the used vehicle market with a lower range will be of less interest to consumers because they are obsolete, even if the used vehicle buyer does not necessarily have the means to buy a new vehicle with a better range. This problem can also be explained by the fact that electric vehicles are perceived as being too expensive for the use they provide and in view of the constraints, particularly on long journeys. It should be noted that the significant progress made in technology and models in recent years, almost from one year to the next, has had a significant negative impact on residual values.

Take, for example, the Renault Zoé, Europe's best-seller in terms of electric vehicle sales, which underwent significant technological developments between 2015 and 2024, significantly increasing the vehicle's range. In 2015, with a 43 kWh battery, the Zoé had a range of 240 km NEDC, or 204 km WLTP. In 2016, with the introduction of a new 41 kWh battery, the Zoé's range jumped to 380 km NEDC, or 325 km WLTP. Finally, in 2019, with the launch of the new generation of Zoé, the 52 kWh battery developed a range of 395 km WLTP, combined with an improvement in charging time, giving a total additional range of 191 km in the space of 4 years. At the same time, as technological improvements were made in range, the price changed very little. As a result, the new generation of Zoé in 2019 was sold at virtually the same price as the previous generation, despite an increase in range of 70 km (+21.5%). In fact, car buvers were well aware that the previous-generation Zoé, as well as having a longer lifecycle, was already obsolete in terms of technology, and was also suffering a double impact on RVs because its list price was virtually the same, despite the technological improvements. As a result, used car buyers negotiated down the price of the Zoe available second-hand.

New developments in batteries, such as lithium-ion accumulators, solid or semi-solid batteries, which promise greater autonomy while reducing the risk of fire, or any improvement in charging time, will accelerate the obsolescence of electric vehicles available on the used car market and, consequently, lead to a fall in the residual value of used electric vehicles. Let's take a look at the solid state battery,

which looks set to be the next major technological advance in the electric vehicle sector. A number of manufacturers are currently working on solid-state batteries, and some of them, including BYD, Nio, Changan, Toyota and Stellantis, recently announced the mass arrival of this technology by 2026 or 2027, and even by the end of 2025 for Hyundai and MG. So, while it is still difficult to quantify the



potential negative impact of these new technologies on RVs, because for the moment it's all just talk, it is certain that they will have a negative impact on RVs. But the key question will be how much this new technology will cost to bring to market. As current electric vehicles are perceived as too expensive, if the additional cost of the solid state battery technology is too high, the technology will not be taken up by potential buyers, which would have a negative impact on the residual values of vehicles equipped with this new technology through the knock-on effect of other factors. If the additional technological cost is low, then the impact on RVs will be greater or lesser depending on the improved range offered.

Conclusion

Although the volume of electric vehicles on the second-hand market is still low compared with that of internal combustion vehicles, representing just 5% of total stocks when petrol and diesel vehicle stocks combined account for just over 80%, the market is still saturated with electric vehicles, which are struggling to convince current second-hand buyers. Despite significant price cuts over the last few months, prices are still too high and certain constraints linked to the use of electric vehicles, particularly in terms of range and recharging time, are still holding back the development of used electric vehicles. Even so, while until recently recharging infrastructure was seen as a potential brake on the development of electric vehicles, it is important to emphasise the significant development of recharging infrastructure throughout the country in recent years, even if all is not yet perfect in this respect.

Without wishing to be overly catastrophic, but remaining as objective as possible, there are many reasons to believe that electric vehicle prices will fall further in the coming months, making the short and medium-term outlook pessimistic:

- Given the trend in new electric vehicle registrations since 2021, stocks of used electric vehicles are set to increase further in the coming months, while demand is expected to grow at a much more limited rate, reinforcing the supply-demand imbalance in favour of supply.
- The supply-side policies pursued by the public authorities, at both European and French level, are also helping to build up used vehicle stocks, while creating uncertainty and a wait-and-see attitude on the demand side, with the result that the supply-demand balance is unbalanced; not to mention the return of vehicles from social leasing within 18 months, with residual values that are completely out of sync with the market.
- Ever-increasing new-car discounts on electric vehicles
- Technological developments to come in the more or less near future...



The well above-market buy-back values used in leasing contracts over the last 3 to 4 years explain the current losses incurred by manufacturers and their financial captives, leasing companies and distributors. However, there is no reason to believe that things will get any better in the months to come, because on the one hand, residual values will continue to fall to adjust to market demand, which is still limited, and on the other hand, the residual values used in current leasing offers, in order to make them more attractive to encourage sales of new electric vehicles, are still much higher than the reality of the market. As a result, financial losses will be incurred for some time to come, unless demand develops at a much faster rate.





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