

6th UPDATE: November 2020

10 of 18 countries adopt a more negative view on scenario probabilities, but only NL changes the most likely scenario.

10 of 18 countries update residual value (RV) outlooks: all countries more positive for 2020 than before; improving outlooks vs. pre-crisis levels in CZ, HU, PL and SE.

8 of 18 countries largely confirm RV outlooks for 2021 and 2022.

How will Covid-19 shape used car markets?

Scenarios for residual value development in Europe for 2020, 2021 and 2022

Last updated: 16 November 2020

**Autovista
Group**....

November 2020

All rights reserved.

© Autovista Group Limited and its subsidiaries

All information contained herein has been obtained by Autovista Group Limited and its subsidiaries from sources believed by it to be accurate and reliable. All forecasts and predictions contained herein are believed by Autovista Group Limited and its subsidiaries to be as accurate as the data and methodologies will allow. However, because of the possibilities of human and mechanical error, as well as other factors such as unforeseen and unforeseeable changes in political and economic circumstances beyond the control of Autovista Group Limited and its subsidiaries, the information herein is provided "as is" without warranty of any kind and Autovista Group Limited and its subsidiaries, and all third party providers, make no representations or warranties - express or implied - to any recipient of this whitepaper or any other person or entity as to the accuracy, timeliness, completeness, merchantability or fitness for any particular purpose of any of the information or forecasts contained herein.

Contents

Three-speed RVs: Europe's used-car prices recover to pre-crisis levels.....	5
A golden age for used car markets?.....	10
The double-edged sword of EV government incentives?	14
Coronavirus scenarios – how swiftly will economies recover?	24
Conclusion.....	31

List of figures

Figure 1: Three-speed RV graph – indexed price development across Europe.....	6
Figure 2: Change in active stock levels and days in stock of active adverts across Europe.....	11
Figure 3: Change in market activity across Europe (young used).....	13
Figure 4: Change in market activity across Europe (older used).....	13
Figure 5: Eurozone GDP growth projections	25
Figure 6: Distribution of average probabilities by scenario; Sep vs. Nov update	26
Figure 7: Used car price development by scenario cluster; UK, Romania separated out (index) ...	29
Figure 8: Used car price development by regional cluster (index); Sep vs. Nov update	29

List of tables

Table 1: Government incentive schemes, their potency and risk of building up RV pressure.....	16
Table 2: France – significant EV incentives; stimuli for used cars help ease RV pressure	17
Table 3: Germany – risk of higher pressure on EV RVs than in other markets.....	17
Table 4: Italy – among the largest purchase incentives for EVs.....	18
Table 5: Spain – sizeable ownership tax cut & large EV incentives; covers young used ICEs	18
Table 6: UK – no Covid-19-induced scheme, currently solely on zero-emission vehicles	19
Table 7: Austria – generous government purchase incentives.....	19
Table 8: Belgium – plans to push ICE Euro0-Euro5 vehicles from city centres by 2025.....	20
Table 9: Finland – high-impact CO ₂ -based acquisition tax benefits make BEV/PHEVs attractive ..	20
Table 10: Hungary – no purchase incentives and free parking for BEVs and PHEVs	20
Table 11: Netherlands – strong incentives for the purchase of used BEVs	21
Table 12: Poland – all about acquisition tax benefits, and they are not putting pressure on RVs...	21
Table 13: Portugal – balanced scheme also supporting ICE; limited budget and no extension.....	21
Table 14: Romania – generous scheme but almost exhausted	22
Table 15: Sweden – strong stimulating effect for new BEVs and PHEVs	22
Table 16: Slovenia – sizeable incentives, but limited to BEVs with a 3-year holding period	22
Table 17: Slovakia – reduced acquisition taxes for hybrids, PHEVs and BEVs only	23
Table 18: Risk scenarios for the impact of coronavirus.....	27
Table 19: Forecast percentage change in residual values EoY vs. March 2020.....	30

Three-speed RVs: Europe's used-car prices recover to pre-crisis levels

Following the emergence of Europe's automotive sector from coronavirus (Covid-19) lockdowns, a 'three-speed' development of residual values (RVs) has prevailed across the region. Senior data journalist Neil King explores the latest developments.

Autovista Group's Covid-19 tracker, which tracks 12 European markets, shows that the index of RVs, compared to early February, is back above pre-crisis levels in all countries except Portugal and Finland. The measurements began in February, with an index value of 100.

The UK and France have enjoyed a rally

The UK has enjoyed the strongest rally in used-car prices, driven by the release of pent-up demand, both from the lockdown and the uncertainty running up to the country's departure from the European Union on 31 January. The UK also faced a starker vehicle-supply challenge than any other market, which translated into higher RVs as used-car demand outstripped supply. Values rose from mid-May and peaked at 106.0 (a 6.0% rise) in the week to 11 October.

However, RVs have since fallen from this great height as pent-up demand is increasingly satisfied and supply improves. In

the latest week for which data are available, to 8 November, the index has receded to 105.0 (a 5.0% rise) and a further downturn is expected as the year-end approaches, which also marks the end of the Brexit transition period. 'With the new lockdown, it is likely that RVs will continue to fall from their high 2020 position back to where we forecast,' added Anthony Machin, head of content and product at Glass's.

French resistance

France benefitted from pent-up demand and a new incentive scheme that came into effect on 1 June. The €8 billion package includes a €7,000 grant for private buyers of new battery-electric vehicles (BEVs) costing less than €45,000 (€5,000 for fleet buyers), while buyers of new plug-in hybrids (PHEVs) can claim a €2,000 subsidy.

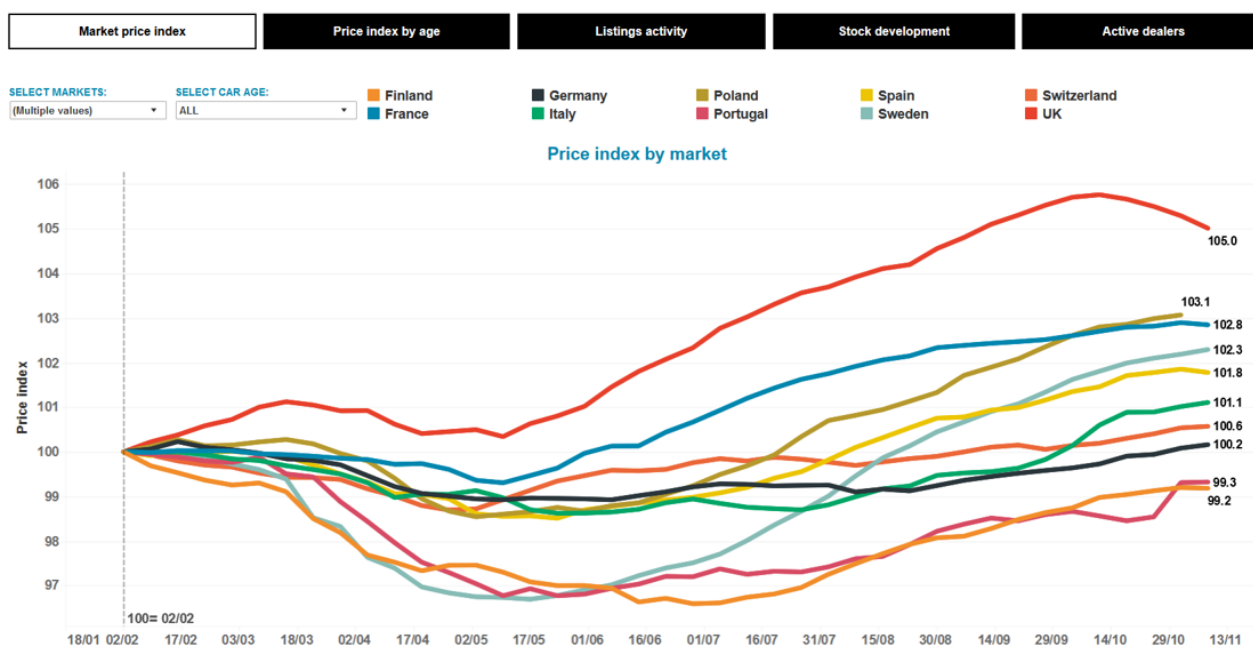
Additionally, France doubled its premiums for those looking to trade in older vehicles for a cleaner model, with a €3,000 grant for vehicles with internal combustion engines (ICE) and €5,000 for BEVs and PHEVs. Crucially, the enhanced trade-in bonus also applied to used

cars and hence the notable rise in RVs. However, [the scheme reached its 200,000-vehicle cap before the end of July](#) and the [Ministry of Ecological Transition](#) announced the replacement of the recovery scheme with a conversion bonus, applicable from 3 August. This has translated into stagnation in the development of RVs in France since the end of August, with the index barely rising from 102 to 102.8 in the week to 8 November, falling to third place behind Poland in the process.

Autovista Group anticipates a slowdown in the RV development in France and our latest RV outlook expects prices of used cars to be 0.3%

lower in France at the end of 2020 than when the Covid-19 crisis erupted in Europe, in March. 'A lack of supply has created the RV jump, but OEM plants are now working at, or close to, 100% capacity in France. So, this should no longer be the case and hence this circumstantial jump should decrease by the end of the year. Considering the 2021 *malus* [tax penalty], people could advance purchases, but we have not changed the outlook right now,' commented Yoann Taitz, Autovista Group's head of valuations and insights for France and Benelux.

Figure 1: Three-speed RV graph – indexed price development across Europe



The price index shows the indexed average movement of the absolute price of all vehicles on offer. We control for vehicle-specific factors, like make, model, age, mileage and optional equipment. We control for changes in basket composition over time as well as aging of the vehicle over time. How to read: if the index moves from 1 to 0.99 in one week on average you would need to pay 1% less for the same vehicle than the week before.

Source: Autovista Group, Residual Value Intelligence, Covid-19 tracker

Rapid-reaction markets

Sweden, Finland and Portugal all had rapid negative reactions to Covid-19. Dramatic lockdown measures were not introduced in Sweden and Finland, but RVs fell from early February to mid-May in both markets.

Sweden, Finland and Portugal initially had rapid negative reactions to Covid-19

RVs have climbed in Sweden since mid-May and recorded 102.3 on the index in the week to 8 November, i.e. 2.3% higher than in early February. In Finland, the index of RVs fell from early February to only 97 in mid-June but has recovered slowly and remains at the lowest level in Europe, registering 99.2 on the index in the week to 8 November (0.8% lower than in early February). 'Finland is still running on low numbers, and we don't see the same quick recovery as in Sweden. The import of young used Swedish cars has picked up again, in combination with lower used-car values than normal, already a factor before the crisis started,' explained Johan Trus, Autovista Group's head of data and valuations, Nordics.

Portugal also endured falling RVs since the tracker index started in February, but a more pronounced downturn commenced at the end of March. As in Finland, the price index has only increased modestly since, to 99.3 in the week to 8 November (0.7% lower than in early February). Portugal and Finland are the only European markets where RVs have not recovered to pre-coronavirus levels.

'Used-car values have been increasing since the end of May 2020 and almost reached pre-pandemic values at the end of October. There has been similar behaviour across all ages,

with the exception of vehicles up to six months old, which reached and exceeded pre-pandemic values as early as June. Used-car transactions have decreased less than new-car registrations during 2020, but there are no new incentive schemes because of the pandemic and also no new incentives from the government for 2021,' commented Joao Areal, editorial manager of Autovista Group in Portugal.

Late starters

The rest of Europe's tracked markets remain 'late starters' with broad stability in values as several effects are balancing each other out.

On the downside, most European markets essentially remain 'on hold' as consumers wait for a better understanding of the full impact of the Covid-19 crisis, especially with a second wave of cases and new lockdowns across the region. In Italy, for example, RVs recovered from late July to mid-October, partly because of [the incentives to support the country's automotive industry](#), which came into effect on 1 August. However, values have stabilised since.

Conversely, the disruption to new-car supply and demand continues to positively impact RVs. In Germany, for example, used-car transactions were just 3.5% lower in the first 10 months of the year than in the same period in 2019, [according to the KBA](#). They have even performed better than last year, for five consecutive months. New-car registrations have been far more affected, however, and are still 23.4% lower in the year-to-date than in 2019.

Switzerland has also seen large declines in new-car sales volumes; 'so nearly-new cars aged zero to six months, and used cars in general, still seem to serve as a gap-filler or alternative for new cars and therefore show

improved RVs,' explained Robert Madas, Autovista Group's valuations and insights manager for Austria and Switzerland.

The strongest development of RVs in recent weeks has been in Poland

Meanwhile, the strongest development of RVs in recent weeks has been in Poland, where the index has overtaken France. 'We can still observe huge demand for used vehicles, especially the youngest, as demand for new vehicles is limited due to fast-growing list prices and lack of availability,' commented Marcin Kardas, head of the Autovista Group editorial team in Poland.

Year-end negativity

Despite the broad stability in the development of RVs, a mixed picture of used-car demand is emerging. Moreover, as Europe battles a second wave of Covid-19, new lockdowns, growing stock volumes, incentives for new cars, and rising unemployment, Autovista Group expects a slightly negative trend for the end of the year, especially for younger cars.

'The stable or slightly rising price levels in Germany are, from my perspective, a result of new entrants selling relatively quickly, whereas models that are not moving on remain at badly-managed, comparably high prices. Just to clarify, there is no dealership that is raising prices, but they are listing new arrivals at relatively high prices and are 'forgetting' about the older vehicles,' commented Andreas Geilenbrügge, head of valuations and insights at Schwacke.

'It looks as if there is a growing volume of vehicles that are collecting stock days and are

not being properly handled by dealerships. The overall volume on offer is rising and stock days are at a significantly higher average level than pre-crisis, at comparable asking prices and with a worse list-price relationship. This is becoming a more and more unattractive situation for dealers and may cause a problem at the end of the year,' Geilenbrügge added.

This cautionary sentiment was echoed by Ana Azofra, valuations and insights manager at Autovista Group in Spain. 'Although prices remain higher than before the crisis, the trend is shifting. The cumulative drop in used-car transactions in 2020 is 14% and now, on average, prices are tending to stabilise.'

Negative trend for the end of the year, especially for younger cars.

'However, the trend is completely different depending on the age group. Even for the youngest cars, prices are starting to drop and the stock volume, which was lower than in March only a few weeks ago, is now higher. This is mainly due to car-rental companies defleeting and, as they are not renewing their fleets either, this could affect the volume of the youngest cars in 2021. Furthermore, the incentive scheme is already penalising RVs, as expected,' Azofra explained.

'In contrast, very old cars are showing a positive evolution, both in terms of sales and prices, which is increasing the overall market average to a great extent. There are two reasons for this positive trend. Firstly, the crisis is diverting demand towards cheaper cars, which favours older used cars. Secondly, the search for safer and more hygienic mobility has attracted some former users of public

transport to lower-cost vehicles. In fact, the sales of cars in the older age groups increased especially in the regions where the coronavirus had (and has) a higher incidence,' Azofra added.

The situation is a bit more optimistic than before in Spain, but the country faces the same challenges as elsewhere. Similarly, in Austria, 'new lockdown measures have come into effect as of November, and there is uncertainty regarding purchasing power and the general economic outlook. Therefore, our RV outlook for the end of 2020 is somewhat

better than before, but we expect a shift of negative effects into 2021,' said Madas.

In Switzerland, the number of active used-car adverts has been rising slightly since the second week of October and was higher than the number of deleted used-car adverts. 'If this trend goes on, the increasing number of used cars – together with rising dealer and/or manufacturer incentives on new cars – could stop the uplift trend for RVs in the near future,' Madas concluded.

A golden age for used car markets?

*In September 2020, **Dr Christof Engelskirchen**, chief economist at Autovista Group, spoke to our leading data scientists, **Dr Anne Lange** and **Markus Halonen**, to make sense of used car market trends during the Covid-19 ramp-up phase.*

Christof: We see very different RV developments across Europe. Finland and Portugal are down. France, the UK, and to some extent, Poland are up. The rest of the markets are trailing around the 100-point index mark, on average. In these markets, we do not yet see any negative or positive impact on used car price levels due to Covid-19.

Clearly, used car price development is an important indicator of the strength of a country's economy. When you look at our data, what factors currently affect used car price formation?

Anne: This chapter captures well how the three different clusters of countries behave during the ramp-up phase. What we usually see is a solid, yet lagged, relationship between stock market performance and used car prices, as long as the stock market represents a good reflection of the economic mood of a country. Currently, that is not the case. Low interest rates and hopes that Covid-19 may be contained shortly have pushed stock prices up. When we look at activities at dealers, we see that the initial shutdown has led to an increase in days in stock of cars. When dealers reopened, they initially began to manage prices down to clear out stock.

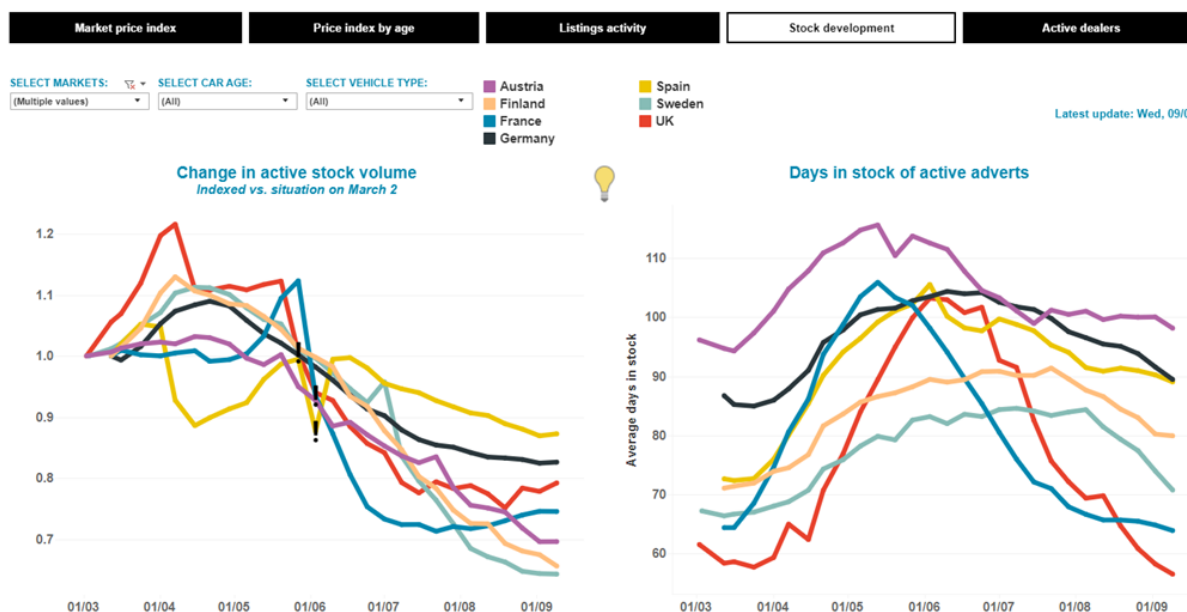
Markus: Yes, this was in the beginning of the crisis, where the supply of used cars was still stable as previously ordered cars were delivered to customers, which brought used cars in stock (see Figure 2, left chart). The used car demand was weak during the first weeks of the crisis and thus used car stock was increasing (see Figure 2, right chart).

Today, days in stock are almost at pre-Covid-19 levels in some markets

Already in mid-April, the stock levels started to drop. This was because the inflow to stock decreased as new car deliveries collapsed but used car demand and sales volume was already improving. Today, days in stock are almost at pre-Covid-19 levels in some markets, which is remarkable (see Figure 2, right chart).

The three clusters we are describing make sense. Initial used car price drops are either slightly recovering, or stabilising, or even rising in markets like UK and France, for very different reasons, which have been well captured in the first chapter (see Figure 1).

Figure 2: Change in active stock levels and days in stock of active adverts across Europe



Left chart shows how active stock at dealers has been declining; right chart shows how days in stock rose initially during lockdowns and have been declining during the ramp-up phases to below pre-Covid-19 levels. Source: Autovista Group Covid-19 tracker

Christof: Are we in a phase of the market, where trends can already be safely interpreted or is it more affected by external events? I am referring to the massive incentive scheme in France also for used car buying, which has pushed RVs up. And I am referring to the weak-British-pound- and supply-shortage-induced lack of new and used cars on the market that meet some pent-up demand and lifts prices up in the UK?

Anne: There are certainly some anomalies affecting current used car price trends. For example, the French incentive scheme, that subsidises used car buying and drives RVs up and the UK's shortage of supply of new and used cars, that drives RVs up. During the last couple of weeks, also holiday season caused a small dip in market activity.

There is one emerging trend that may last longer: people may exhibit a financial cautiousness and rather turn to a used car than a new car. This is further compounded by the lack of available new cars. In addition,

those that used to rely on public transport may opt for some budget alternatives, thus driving demand for the older user cars up.

Markus: The reason for the decreasing active stock (number of active adverts) is simply that the dealers are selling out more cars than they are buying. For example, in Finland and Sweden, the used car selling volume has been truly at a high level lately. In June this year, used car retail sales volumes were higher than in June 2019. High sales but lower than normal inflow of used cars keeps the stock falling.

We have some anomalies, like the French used car incentive scheme, pushing RVs up, but even in those countries where schemes are different or non-existent, there are commonalities: used car sales volume is at good level, stock decreasing and prices increasing. On top of what Anne said, a reason for the currently good demand for used cars is that people did spend less money on vacation and during the lockdown. Patterns of consumption have changed, at least temporarily. Used car markets are benefitting.

Christof: When we look at the very old used cars (>6 years), they usually perform pretty well in the current economic climate. Used car buyers seem to be looking for budget alternatives at times where they avoid public transport. However, there is a peculiar pattern for the nearly new young vehicles vs. the very old used cars. In many markets, we see that the older used cars perform relatively better than the very young ones, for example in Germany, France, Spain, and in particular in the UK. In Austria, Belgium, Finland and Sweden, the very young cars outperform the older ones. Is this driven by supply shortage more than differences in demand?

Anne: Let me try to sort through this. In most countries, we can see a lower supply of less than 1-year-old used cars to the market than pre-Covid-19 (see Figure 3, left chart). For cars six years and older, there are the same amount or more cars offered by dealers than pre-lockdown (see Figure 4, left chart). You are therefore describing two trends that have very different root causes. There is a lack of supply of new and very young used cars currently supporting price realisation for very young used cars. For the very old used cars, it is rather the strong demand for them that helps keep prices stable and rising.

Christof: People ask questions about our methodology for publishing used car price development. How sensitive is our methodology for outliers? How quickly do we capture emerging trends?

Markus: Our methodology is based on market observation data that we source from various portals all across Europe on a daily basis. We control for outliers, data errors and non-actively managed cars. This works reliably.

I am not sure what the background is to question around controlling for irregular market conditions. Irregular market conditions

like the Covid-19 pandemic have an effect on used car prices, and that is what we are capturing with our data models. For measurement accuracy, we have implemented rolling values, where past days' trends are captured as well as the current days' realities. We put more weight on recent values in the statistical models. There is only a very small lag in how fast we see emerging trends, much smaller than for any economic modelling.

Christof: Has dealer activity picked up again? Are we back to normal? In which markets have dealers achieved the full turnaround in activities?

Anne: The number of dealers that are active in the market is almost back to pre-pandemic times with a typical holiday dip in recent weeks, although there is less new advertising activity than selling activity overall. Dealers are still clearing out their stock. Numbers indicate a shortage of young used cars.

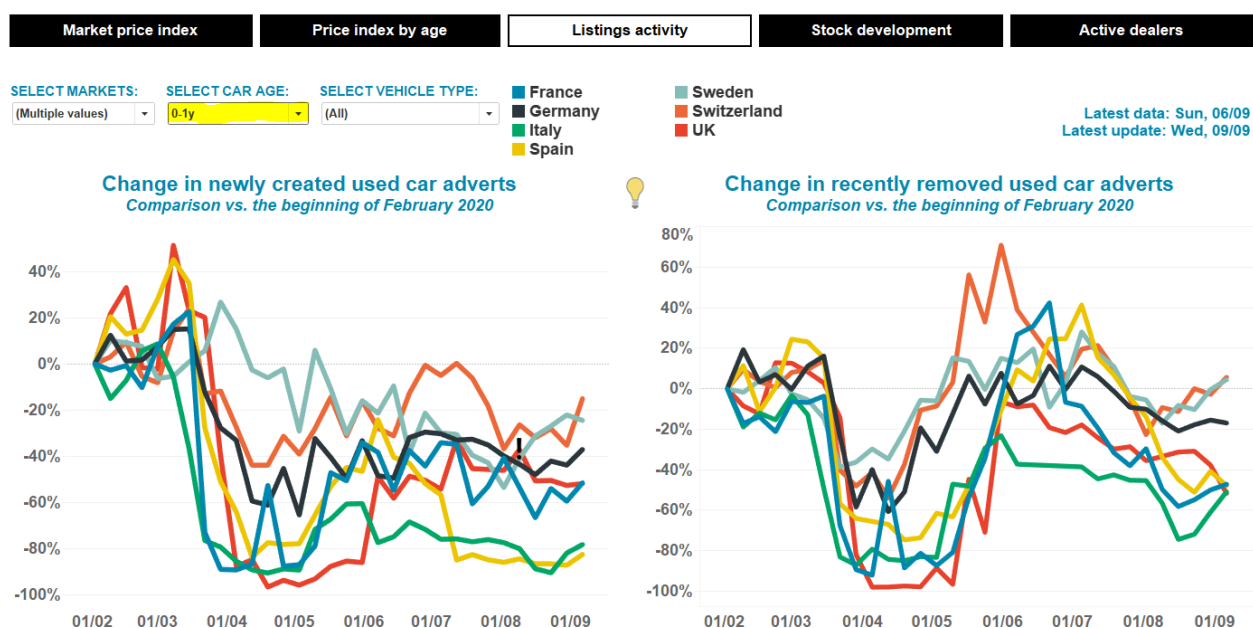
Markus: The golden period of used car remarketing continues into September in many markets, despite gloomy economic outlooks. It is mostly driven by supply shortage of new cars and very young used cars, as well as pent-up demand.

Christof: Any word of advice?

Markus: Keep riding the wave of currently strong used car demand. A well-managed used car business is most important for car dealers during these difficult times, where fewer new cars are sold than normally.

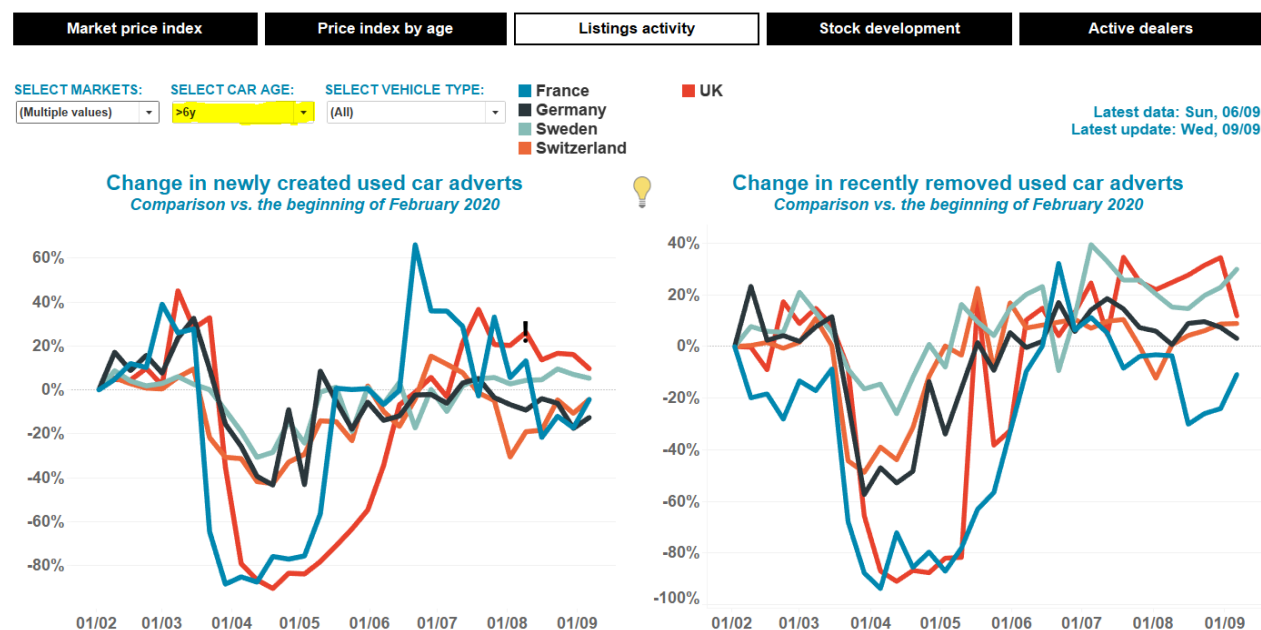
Anne: I agree. Tougher times may be ahead, and our editorial teams are publishing the Covid-19 Whitepaper to discuss the RV forecasts for 2020, 2021, 2022 by scenario. My advice would be to keep reviewing the latest outlooks provided later in this whitepaper.

Figure 3: Change in market activity across Europe (young used)



Left chart shows how active stock at dealers for cars up to one year old has been declining and rising but they are still at a below pre-Covid-19 level; right chart shows that sales of these very young used cars is on pre-Covid-19 levels on average. Source: Autovista Group Covid-19 tracker

Figure 4: Change in market activity across Europe (older used)



Left chart shows how active stock at dealers for cars older six years is increasing to pre-Covid-19 levels or slightly above; right chart shows that sales of these older used cars exceeds pre-Covid-19 levels. Source: Autovista Group Covid-19 tracker

The double-edged sword of EV government incentives?

Autovista Group's chief economist Dr Christof Engelskirchen ponders the pros and cons of electric-vehicle (EV) purchase incentives.

High up-front discounts granted on the purchase of new cars and their negative impact on residual values (RVs) is a phenomenon well described and frequently observed in the automotive industry. We covered it in our [recent piece](#) on the impact of sales planning on residual values. Lower residual values do not only represent a direct economic loss for those with vehicles on their balance sheets; low residual values also prevent profitable new car sales, as they make it almost impossible to offer competitive and sustainable leasing rates.

Many governments are determined to support the particularly battered automotive industry, which is confronting several expensive fights. It is battling with new technologies, new competitors, the shift to zero-emissions and depressed margins. The pandemic and the associated lockdowns have intensified the pressure. Recovery will take considerable time. Many jobs are at risk, and it is sensible for governments to soften the blow by supporting the transition financially.

There is one caveat: too often, the government-funded stimulus programmes focus solely on stimulating demand for new

cars. Governments should avoid this and other common mistakes such as:

1. Up-front, transparent and long-term incentives send the signal that new cars are overpriced without them. Lower transaction prices of new cars will lower transaction prices of used cars. A good example of this can be seen in France, where many years of a bonus/malus system have depressed the used car price of battery-electric vehicles (BEVs);
2. Governments risk creating an oversupply of used cars. The German government has reduced company-car taxes for many plug-in hybrid electric vehicles (PHEVs) by 50% (and 75% for BEVs). That makes them highly attractive as company cars, in particular PHEVs due to their versatility. There is a substantial risk that the rise in the supply of used PHEVs will not meet the same demand on used car markets, as there is no similar relative benefit for a used car buyer to choose PHEV over petrol;

3. Even though government programmes mostly stimulate alternative powertrain types, the massive support – easily 10%-20% of the list price – delivers negative spillovers on all used car prices, even those of internal combustion engine (ICE) vehicles. The higher the stimulus is, the higher the spillover effects become;
4. Reducing VAT for used cars is a mistake, as it directly lowers the signalled retail used car price. Germany has implemented such a measure for the period of July to December 2020: VAT rates are reduced from 19% to 16% for used cars. This will effectively drive down signalled retail used car prices on internet portals by 2.52%. Stimulating used car purchases can be RV-supportive, if done correctly: ex-post refund of part of the VAT or simply a purchase incentive for used cars – as seen in France and the Netherlands, and to a lesser extent in Spain – works better; and
5. Incentives are like a drug, and an exhausted incentive scheme creates a bigger demand gap. Many push the purchase of their vehicle forward because of a scheme, as currently observed in France where used car prices are rising because their purchase is incentivised by the government. The scheme ran out by the end of July.

European incentive schemes: more pressure

The existing government incentive schemes in Europe and the UK are diverse and show how differently countries approach the topic. We compare them in Table 1. We see that 16 of the 18 countries we analysed have an incentive scheme for electric vehicles (BEV & PHEV) in place. We have evaluated the relative strength of the stimulating effects for each dimension of the schemes.

There is a very strong stimulating effect derived from the very high purchase incentives for BEVs and PHEVs

Most governments that have installed incentives schemes offer purchase incentives as part of the scheme. Schemes in France, Germany, Italy, Austria, the Netherlands, Romania and Sweden are particularly generous. Company car tax benefits exist in nine out of the 14 schemes, and they can act as impactful stimuli. Acquisition-tax and ownership-tax benefits are frequent as well, but usually have less of a stimulating effect. The exception is in Finland, where lower acquisition taxes bring the prices of BEVs down to ICE-vehicle levels.

Our evaluation of the schemes covers previously existing schemes on top of the newly added schemes.

Tables 2 to 17 describe the schemes and verdicts for the markets we cover in this update.

Table 1: Government incentive schemes, their potency and risk of building up RV pressure

	Incentive Scheme for Electric Vehicles (BEV & PHEV) (how much demand is stimulated: + = mildly; ++ = moderately; +++ = strongly)						Incentive Scheme-induced Pressure on RVs for Electric Vehicles in 2020/2021					Incentive Scheme-induced Pressure on RVs for ICE Vehicles in 2020/2021				
	Acqui- sition Tax Benefit	Owner- ship Tax Benefit	Company Car Tax Benefit	Purchase Incen- tive incl. used cars and (optional) scrappage	Low	Med	High			Low	Med	High		
FR	+		++	+++	+++	+++		X				X				
DE	+	+	+++	+++	(+)				X			X				
IT		+		+++		++	X					X				
ES	+	+		++	+	+	X					X				
UK		+	+++	+			X					X				
AT	++	++	++	+++				X				X				
BE		+	++				X					X				
CH	no incentive scheme															
CZ	no incentive scheme															
FI	+++	+		+			X					X				
HU	+	+	++				X					X				
NL		+	+++	+++	++		X					X				
PL	+						X					X				
PT	+	+	+	+			X					X				
RO				+++		+			X			X				
SE		++	++	+++				X				X				
SI	+			++			X					X				
SK	+						X					X				

Note: this also includes stimuli that had been present before Covid-19

Note: these impacts have been considered in our Covid-19 whitepaper RV outlooks

Source: Autovista Group

Table 2: France – significant EV incentives; stimuli for used cars help ease RV pressure

Description of scheme	Verdict for EVs	Verdict for ICE vehicles
<ul style="list-style-type: none"> Acquisition-tax exemption for all alternatively powered vehicles (total or 50%, depending on region). No ownership-tax benefits. Exemption from CO₂-based company-car tax component, if less than 20g CO₂/km. Purchase incentive now up to €7,000 for private buyers for cars if <20g CO₂/km. Scrappage scheme for new and used BEVs/PHEVs (<50g CO₂/km), up to €5,000, and new and used ICE vehicles up to €3,000, depending on income. Used-petrol cars purchased younger than nine years, diesel not registered before September 2019. Used-car portion of scheme only for 200,000 vehicles and has been exhausted by the end of July; an extension of the scheme at slightly reduced levels and focusing on PHEV and BEV used cars has been installed. The rest of scrappage scheme for new cars is valid until end of 2020. 	<p>Medium pressure for 2020/2021</p> <p>The French bonus/malus scheme has been in place for a long time and has already put EVs under pressure. The enhanced scheme increases pressure on used car prices due to increased up-front discount on new cars (easily beyond €10,000). Used-car sales are stimulated as well, and the incentive is income-dependant. This moderates the risk of negative impacts on used car prices, although not enough for a better score as used car purchase support will be exhausted shortly, while the rest of the scheme remains in place.</p>	<p>Low pressure for 2020/2021</p> <p>Although the majority of the scheme focuses on incentivising the purchase of EVs, there are negative spillover effects on used-ICE vehicle demand. The scrappage scheme, which includes incentives for buying low-emitting used-ICE vehicles, mitigates the increasing pressure to some extent.</p>

Table 3: Germany – risk of higher pressure on EV RVs than in other markets

Description of scheme	Verdict for EVs	Verdict for ICE vehicles
<ul style="list-style-type: none"> VAT reduction from July - December 2020 from 19% to 16%, but little stimulating effect expected. 10-year exemption for BEVs registered until end of 2025, but small economic impact compared to petrol taxes. Benefit-in-kind taxation: reduction of taxable amount (from 1% to as far down as 0.25%); this is very stimulating for the demand for new PHEVs or BEVs as company cars. Further enhanced-purchase incentive scheme: until 2021, further incentive of up to €9,000 for cars under €40,000 net list price. Mostly targeted at new cars. Only BEVs and PHEVs benefit. Very strong expected stimulation of new PHEV demand, in particular. 	<p>Medium-high pressure for 2020/21</p> <p>Germany has launched the biggest stimulus package across Europe. The substantial increase in top-down incentives on new EVs adds pressure on used car values. There is very little emphasis on stimulating demand for used EVs, so there is no moderating effect. The lower company-car taxation will stimulate many new car transactions. There is a risk that used car markets will not absorb these cars, in particular PHEVs, which adds further pressure towards 2022/2023. Albeit small, the VAT reduction directly lowers both new car prices as well as used car prices, which adds further pressure.</p>	<p>Low-medium pressure for 2020/21</p> <p>Thankfully, the German Covid-19 additions to the existing incentive scheme continue to focus on EVs. This limits the impact on used car prices for ICE vehicles, although the magnitude of incentives on new EVs will create some negative spillovers. So too does the VAT reduction on new and used cars that lowers observed prices directly by around 2.5%. Commercial sellers will not bear these costs, but the lower price position for used cars will be a signal difficult to change once the VAT reduction runs out.</p>

Table 4: Italy – among the largest purchase incentives for EVs

Description of scheme	Verdict for EVs	Verdict for ICE vehicles
<ul style="list-style-type: none"> No reduced acquisition taxes. Ownership tax benefits: five-year exemption for EV from first date of registration; then 25% of equivalent petrol vehicle tax applies. No company-car tax benefits. Purchase incentives until end of 2021: €4,000 (without scrappage) and €6,000 (with scrappage of Euro 0-4) for cars emitting ≤20g CO₂/km; price less than €50,000, excl. VAT; €1,500-€2,500 for emissions between 21g and 70g CO₂/km; malus of up to €2,500 for cars emitting more than 250g CO₂/km. Additional purchase incentive until end of 2020: with scrappage of a car older 10 years and as long as the new car emits below 111g CO₂/km, €1,500 (€2,000 if below 61g CO₂/km). On top, dealers must add another €2,000 for this scheme to apply; price of new car to be below €40,000, excl. VAT. Without scrappage, the government contributes between €750 to €1,000 with dealers having to add another €1,000. 	<p>Low-medium pressure for 2020/21</p> <p>The long-term tax reduction for EVs delivers small but positive momentum not only on the new car market but also on the used car market. It makes buying a used BEV attractive. The lack of company-car benefits avoids risks of oversupply of PHEVs or BEVs as used cars. The moderately long bonus/malus scheme (until end of 2021) and the additional purchase incentive (until end of 2020) grants a substantial discount on new EVs. This puts pressure on used-EV prices.</p>	<p>Low-medium pressure for 2020/21</p> <p>Some direct pressure will be induced on smaller-vehicle segments because there are purchase incentives (with and without scrappage) for ICE vehicles as long as they emit less than 111g CO₂/km. There is a small risk of spillover due to the lower transaction prices for new EVs that may decrease the demand for used ICE vehicles slightly and thus impact prices. The small tax benefit associated with EVs may negatively affect demand for used ICE cars.</p>

Table 5: Spain – sizeable ownership tax cut & large EV incentives; covers young used ICEs

Description of scheme	Verdict for EVs	Verdict for ICE vehicles
<ul style="list-style-type: none"> Acquisition tax exemption from 'special tax' for vehicles emitting up to 120g CO₂/km; VAT exemption for alternative powertrain types, incl. HEVs, emitting up to 110g CO₂/km on Canary Islands. Ownership-tax reduction in place for some time: reduction of 70-75% for BEVs and PHEVs in main cities (e.g. Madrid, Barcelona, Zaragoza, Valencia); more schemes could follow. No company-car tax benefits. Revised incentive scheme in place: <ul style="list-style-type: none"> (1) Plan MOVES II, specific for new/young used (registration in 2020) BEVs & PHEVs (<45K): €5,000 plus up to €500 if car >7 yrs. (€1,000 if car >20 yrs.) is scrapped; (2) Plan RENOVE - Hybrids, MH, GLP, GNC new/used vehicles (registered in 2020) <35K: scrappage of car >10-year-old car required, up to €2,000 incentive and €500 if car scrapped >20 years; and (3) Plan RENOVE, ICE new and used vehicles (registered in 2020) up to 120g CO₂/km (<35K) Petrol Euro 4, 5, 6 ; diesel Euro VI: up to €1,600 with the same scrappage elements as (2). 	<p>Low-medium pressure for 2020/21</p> <p>Biggest potential risk to RVs stems from substantial purchase incentives, which cover BEVs and PHEVs up to €45,000 list price. Purchases of young used cars are incentivised, which lowers the demand for three-year-old vehicles, adding to the pressure. Acquisition tax exemption puts mild pressure on used EVs. A positive and moderating effect comes from the longer-term ownership tax reduction and a lack of company car tax benefit.</p>	<p>Low pressure for 2020/21</p> <p>The majority of the scheme focuses on incentivising EVs, but some portions of the scheme are designed to increase demand for new ICE and young ICE vehicles. This adds some pressure to RVs that could be higher if the plan is extended.</p>

Table 6: UK – no Covid-19-induced scheme, currently solely on zero-emission vehicles

Description of scheme	Verdict for EVs	Verdict for ICE vehicles
<ul style="list-style-type: none"> No ownership tax exemption. Exemption for excise duty – ownership tax – for zero-emission vehicles. Sizeable company-car tax benefits for zero-emission vehicles: 0% in 2020-2021, 1% in 2021-2022, and 2% in 2022-2025. Purchase incentive for zero-emission vehicles of £3,000 if the purchase price is below £50,000. Ongoing discussions to enhance the scheme further, but no decision has been communicated, and previous suggestions have been rejected. 	<p>Low pressure for 2020/21</p> <p>The scheme now puts its entire emphasis on BEVs. The purchase incentive is sizeable but smaller than in other European countries. The company-car tax benefits are strong and will lead to more BEVs becoming company cars. However, there is an inherent supply shortage of new and used BEVs in the UK market, so no negative impact on RVs is expected.</p>	<p>Low pressure for 2020/21</p> <p>As there is no current purchase stimulus for ICE vehicles, the only marginal risk could come from negative spillover effects generated by the increased demand for new BEVs. This is unlikely to be sizeable, which is why we expect low or even no pressure on RVs for ICE vehicles in the UK due to the current government incentive programme.</p>

Table 7: Austria – generous government purchase incentives

Description of scheme	Verdict for EVs	Verdict for ICE vehicles
<ul style="list-style-type: none"> E-Mobility bonus for passenger cars: BEVs (and FCEVs) are subsidised by €5,000 per vehicle (€2,000 from the importers association + €3,000 from the government); Plug-In Hybrid (PHEVs) and Range Extenders (REX, REEV) are subsidised by €2,500 (€1,250 from the importers association + €1,250 from the government). Conditions for the subsidy: max. €60,000 (incl. VAT) list price of the base model; min. range of 50km fully electric; PHEV, REX, REEV only with petrol hybrid (no diesel). LCVs between >2.0 and ≤2.5 tons max. load subsidised with €7,500 (€2,000 from the importers association + €5,500 from the government); over >2.5 tons max. load: €12,500 (€2,000 from the importers association + €10,500 from the government). 	<p>Medium pressure for 2020/21</p> <p>There is less discounting on BEVs and PHEVs than on ICE models. However, the government subsidy schemes will have a negative impact on RVs as they work similarly to discounts.</p>	<p>Low pressure for 2020/21</p> <p>The incentive scheme focuses on BEVs and PHEVs, so there is no direct negative effect on ICE RVs. However, many new BEV and PHEV purchases will lead to more ICE cars on the used cars market so there could be a slight negative indirect effect on RVs.</p>

Table 8: Belgium – plans to push ICE Euro0-Euro5 vehicles from city centres by 2025

Description of scheme	Verdict for EVs	Verdict for ICE vehicles
<ul style="list-style-type: none"> Bonus schemes and tax relief are regional and federal. In recent years, a bonus was allocated for the purchase of EVs and the installation of charging stations. This is no longer the case. Tax benefits: company (leasing cars) are granted 100% VAT deduction on expenses for BEVs and PHEVs (<50gr CO₂). From 1 January 2021, Flanders defined WLTP CO₂ as calculation base for annual Road Tax and First Registration Tax. Tax relief granted to CNG; PHEV is cancelled for new vehicles only (standard taxation scheme) but advantage maintained for already registered vehicles. BEV and hydrogen vehicles remain tax exempted. In Wallonia (Brussels), annual Road Tax is based on fiscal HP classes, and First Registration Tax based on kW (and or engine size) classes; there is a CO₂ malus on top. 	<p>Low pressure for 2020/21</p> <p>Lack of charging infrastructure is more impactful on RVs than incentive schemes. ICE engines to be banned from city centres and company cars have to become green/electric (CO₂-neutral) by 2026.</p>	<p>Low pressure for 2020/21</p> <p>Target to ban Euro0-Euro5 from city centres by 2025 will affect ICE values.</p>

Table 9: Finland – high-impact CO₂-based acquisition tax benefits make BEV/PHEVs attractive

Description of scheme	Verdict for EVs	Verdict for ICE vehicles
<ul style="list-style-type: none"> CO₂-based acquisition tax brings purchase price for BEVs/PHEVs to comparable levels with ICE. €2,000 incentive for BEVs <€50,000. Lower yearly road tax for PHEVs petrol/BEVs against diesel/PHEV diesel. 	<p>Low pressure for 2020/21</p> <p>With the current incentives and regulations, we see no extra pressure on BEV/PHEV RVs.</p>	<p>Low pressure for 2020/21</p> <p>With the current incentives and regulations, we see no extra pressure on ICE.</p>

Table 10: Hungary – no purchase incentives and free parking for BEVs and PHEVs

Description of scheme	Verdict for EVs	Verdict for ICE vehicles
<p>For all BEV and PHEV cars with green number plates (i.e. where range in EV mode is more than 25 km):</p> <ul style="list-style-type: none"> No acquisition tax. Lower registration tax for PHEVs than ICE vehicles and zero for BEV. Exempt from company car taxes. Exempt from ownership taxes. Free parking in the larger cities. 	<p>Low pressure for 2020/21</p> <p>No purchase incentives and some of the incentives extend to used car ownership and thus compensate for RV pressure.</p>	<p>Low pressure for 2020/21</p> <p>Very limited spillover effects as ICE vehicles are not harmed by EV incentives.</p>

Table 11: Netherlands – strong incentives for the purchase of used BEVs

Description of scheme	Verdict for EVs	Verdict for ICE vehicles
<ul style="list-style-type: none"> Since 1 July 2020, there is a subsidy of €4,000 for the private purchase/lease of a new BEV. Purchasing a used BEV: subsidy is €2,000. 2020 budget for new car subsidies: €10,000,000. 2020 budget for used BEV subsidies: €7,200,000. Conditions for obtaining the subsidies: 100% electric passenger car with a range of at least 120km; list price (original new price) not lower than €12,000 and no higher than €45,000; the car was produced as an electric passenger car and may not have been converted into an electric car. 	<p>Low pressure for 2020/21</p> <p>2020 budget for the new cars exhausted. Budget for new BEVs for 2021 almost exhausted (€11.6 million out of €14.4 million). €2.5 million is still available for used cars, counterbalancing negative RV impacts.</p> <p>In fact, these subsidies mean that there is currently a shortage of used BEVs. Frequently, used electric cars are imported.</p>	<p>Low pressure for 2020/21</p> <p>Since these cars are excluded from the subsidy scheme, they retain their market position.</p>

Table 12: Poland – all about acquisition tax benefits, and they are not putting pressure on RVs

Description of scheme	Verdict for EVs	Verdict for ICE vehicles
<ul style="list-style-type: none"> No longer any purchase incentives. Acquisition tax reduction based on engine size: hybrids pay 50% of acquisition taxes if engine size is below 3,500cc; PHEVs used to be exempt but are now paying 50% of ICE taxes between 2,001 and 3,500cc. BEVs are exempt. 	<p>Low pressure for 2020/21</p> <p>There is little demand for BEVs in Poland. It is amongst those markets in Europe with the lowest BEV adoption.</p>	<p>Low pressure for 2020/21</p> <p>There is no impact on ICE vehicles.</p>

Table 13: Portugal – balanced scheme also supporting ICE; limited budget and no extension

Description of scheme	Verdict for EVs	Verdict for ICE vehicles
<ul style="list-style-type: none"> Acquisition taxes are based on CO₂ emission and engines size. BEVs are exempt, PHEVs pay 25% of total tax. The impact on demand is higher in PHEV than in BEV. Ownership taxes: BEVs are exempt. Company Tax for vehicles: BEVs are exempt and PHEVs pay less depending on the new price. VAT is refunded for company diesel vehicles. Purchase incentives: €3,000 for BEVs and PHEVs with a limit of €4,000,000 (includes EV motorcycles and EV bicycles). Light vehicles, where total purchase cost incl. VAT >€62,500 not eligible. All of these incentives are pre-Covid-19 (no new incentives during the pandemic). 	<p>Low pressure for 2020/21</p> <p>Very balanced scheme and limited budget. No new incentive schemes expected for 2021.</p>	<p>Low pressure for 2020/21</p> <p>No negative impact on ICE vehicles expected. Diesel demand is also stimulated via VAT refunds.</p>

Table 14: Romania – generous scheme but almost exhausted

Description of scheme	Verdict for EVs	Verdict for ICE vehicles
<ul style="list-style-type: none"> ▪ Incentives program 'Rabla' in place this year and is quite sizeable: 60,000 vouchers each worth RON 6,500 (c. €1,340), if you discard your old vehicle. The voucher is used to purchase a new car; the scope of the programme is to renew the national car park and at the same time to stimulate the economy. ▪ Eco bonus worth RON 1,000 (c. €206) if you purchase a new vehicle that has lower emissions than 105g CO₂/km under WLTP regime. ▪ Eco bonus worth RON 2,500 (c. €515) for a new non-PHEV. ▪ If one purchases a PHEV, the voucher increases to RON 20,000 (c. €4,123); only 400 vouchers available. ▪ The biggest incentives go towards BEVs with a voucher worth RON 45,000 (c. €9,278); 2,500 vouchers available. But almost all vouchers and tickets have been claimed. 	<p>Medium-high pressure for 2020/21</p> <p>Since the BEVs purchase voucher is almost €10,000, this puts pressure on BEV RVs.</p>	<p>Low pressure for 2020/21</p> <p>Because of mobility needs and relative high demand for vehicles there will be no extended pressure on ICE RVs in the near future coming from the incentive schemes.</p>

Table 15: Sweden – strong stimulating effect for new BEVs and PHEVs

Description of scheme	Verdict for EVs	Verdict for ICE vehicles
<ul style="list-style-type: none"> ▪ Incentive of up to €6,000 if CO₂ <60 g. ▪ CO₂-based on road tax, punishing cars >80g CO₂. ▪ Lower company car taxation for BEV/PHEV. 	<p>Medium pressure for 2020/21</p> <p>Sizeable incentives create a lot of demand on the new car market. However, demand on used car markets is also solid.</p>	<p>Low pressure for 2020/21</p> <p>No added pressure on ICE vehicles coming from the electric vehicle incentive scheme.</p>

Table 16: Slovenia – sizeable incentives, but limited to BEVs with a 3-year holding period

Description of scheme	Verdict for EVs	Verdict for ICE vehicles
<ul style="list-style-type: none"> ▪ Purchase incentive of €6,000 for BEV M1 and €4,500 for BEV N1, valid for new or test vehicles (condition: holding period of 3 years). 	<p>Low-medium pressure for 2020/21</p> <p>Limited to BEV. Some pressure on RVs because of the substantial size of the incentives. 3-year holding period manages risks down a bit.</p>	<p>Low pressure for 2020/21</p> <p>No pressure on RVs.</p>

Table 17: Slovakia – reduced acquisition taxes for hybrids, PHEVs and BEVs only

Description of scheme	Verdict for EVs	Verdict for ICE vehicles
<ul style="list-style-type: none"> 50% reduction of acquisition tax for hybrid cars (plug-ins too). BEV acquisition tax is minimal:€33. 	<p>Low pressure for 2020/21</p> <p>Only acquisition tax benefits for BEV and PHEV.</p>	<p>Low pressure for 2020/21</p> <p>No pressure on RVs.</p>

Conclusion

Incentive schemes are necessary to compensate for an expected loss of private purchasing power as part of the economic crisis that will follow Covid-19 lockdowns. Most European countries have enhanced their schemes, and they offer very sizeable purchase incentives. Schemes are largely targeted towards new electric vehicles (i.e. BEVs and PHEVs), which is why the expected negative impact on RVs is higher for electric vehicles. The schemes may create an oversupply of electric vehicles towards 2022.

We are less concerned about pressure building up for used ICE vehicles across Europe, as they receive less attention in government schemes.

We are less concerned about pressure building up for used ICE vehicles across Europe, as they receive less attention in government schemes

Smarter schemes make sure that demand is also stimulated on the used car market: France, the Netherlands and Spain are good examples for this. Here, governments have installed schemes that include purchase incentives for used vehicles.

Coronavirus scenarios – how swiftly will economies recover?

Thoughts had turned towards a swifter economic recovery over Q3 2020, but now the second wave of Covid-19 hits Europe hard. Is a fast recovery wishful thinking? Will pent-up demand be exhausted soon? Here, Autovista Group's experts analyse the latest trends and scenarios for Europe's used-car markets.

In our ambition to support analysis of the impact of the coronavirus on the automotive industry, we have developed a number of scenarios. The scenarios are based on risks associated with the following five mandatory parameters, as well as other country-specific factors that influence RV development:

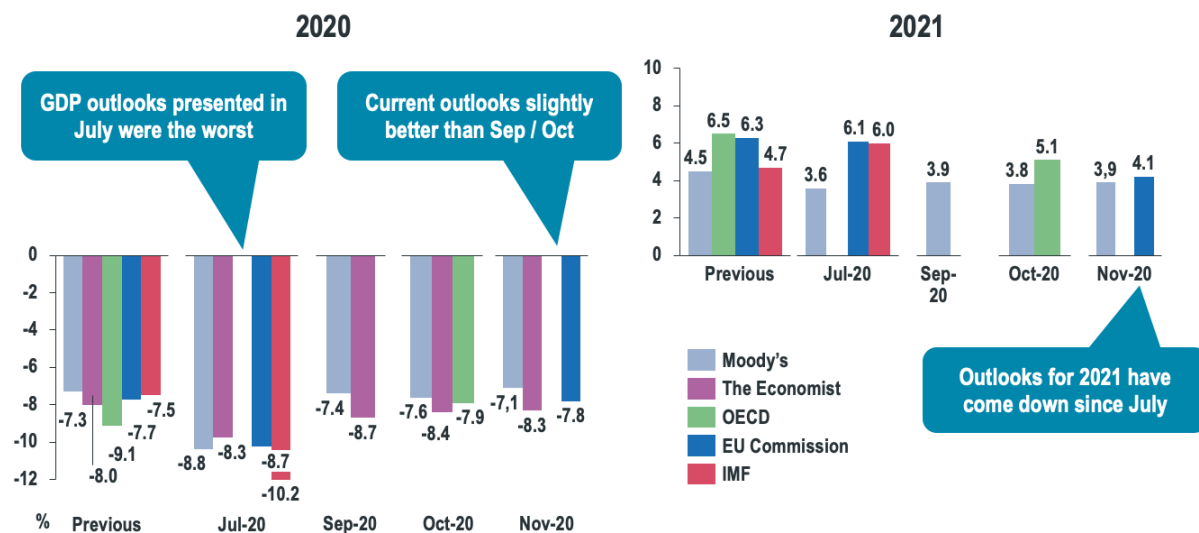
- How long until the spread of infections is contained;
- The economic outlook for 2020, 2021 and 2022;
- On the supply side, expected issues in the supply chain for new car production;
- On the demand side, development of private consumption over the coming years; and
- An assessment of how effectively fiscal and monetary policy measures are working.

Views on economic recovery have improved

Before the lockdown, forecasts of GDP growth were around 2% for 2020 globally and slightly below 1% in the Eurozone, an outlook that had already been depressed compared to January and February baselines. Since then, the view of the crisis and its economic impact continuously darkened, hitting a low in July. Forecasts published in September 2020 painted a more positive picture, however, and the view for October was similarly positive (Figure 5).

The latest forecast published by the EU Commission on 5 November confirms an expected longer path to recovery in 2021 (Figure 5). We expect other institutions to adjust their view on economic recovery in a similar way.

Figure 5: Eurozone GDP growth projections



Source: Moody's The Economist, OECD, EU Commission, IMF, Autovista Group analysis

The immense levels of pent-up demand and the fact that the contraction of the economy was so severe during Q1 and Q2 2020 drove much of the Q3 economic rebound. Many forecasters have stressed the expectation that the v-shaped recovery will lose steam towards the end of the year and that recovery to pre-crisis levels will take until 2022 in the Eurozone. The second wave of the Covid-19 is a reminder that the pandemic is not over.

Most likely scenario: 'medium risk'

In our August and September updates of this whitepaper, 12 out of 18 markets allocated themselves to our 'medium risk – slow u-shaped recovery' scenario (SC3). We confirm this view for this November update. The same 12 countries expect that scenario to materialise with the highest probability. Ten countries adjusted their scenario probabilities for this update. The average probability for SC3 rose from 54% to 61% in those countries that chose it as the most likely scenario.

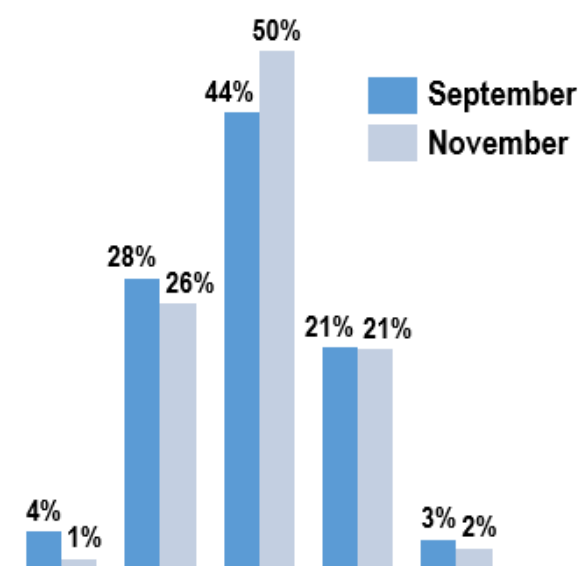
Figure 6 looks at the distribution of all probabilities assigned to each scenario by each of the 18 countries. The latest adjustments mirror the more subdued economic outlook: the average probabilities allocated to SC1 and SC2 have come down, and for SC3 have risen. Countries expect a setback in Q4 2020 and Q1 2021.

The v-shaped recovery loses steam towards year-end

Robert Madas, valuations and insights manager for Austria and Switzerland, gives the view that many of our editors share: 'Observation data from the last weeks has shown further stabilisation of asking prices. There is still stable demand in the used car market. However, we see high uncertainty regarding possible new lockdown measures due to the second Covid wave. Therefore, our RV outlook for the end of 2020 is somewhat better than before but we expect a shift of

negative effects into 2021. With regards to recovery scenarios, we still expect a slow u-shaped recovery in both markets.'

Figure 6: Distribution of average probabilities by scenario; Sep vs. Nov update



Source: Autovista Group

Table 18 shows scenario probabilities for the 18 countries covered in this initiative. Compared to the last update, scenario probabilities remain unchanged for Austria, France, Italy, Poland, Portugal, Slovenia and Switzerland. Apart from France, they all see SC3 as most likely. France remains in the more positive SC2, despite currently facing one of the strictest Covid-19 lockdown regimes in Europe.

France's used car markets are performing above pre-crisis levels for the observed age bracket, behind only the UK and Poland. 'That may be surprising but is a consequence of powerful incentive scheme that also supported

the purchase of used cars,' explains Yoann Taitz, head of valuations and insights for France and Benelux. 'I doubt that this positive trend will persist until the end of this year,' he states, however.

The most substantial downward adjustments in terms of scenario probabilities happened in Hungary, Czechia, Finland and Sweden, with probabilities of 60% and higher for SC3, as hopes for a v-shaped recovery have vanished. Belgium and Spain both upped the probabilities for SC3 by 5 percentage points.

Most notably, the Netherlands switched from SC1 as the most likely scenario to SC2, joining France, Germany and Poland. These four countries are looking more positively into the future, but see darker clouds forming.

Germany raised the probability for SC3 3 from 35% to 45% in this update, making it almost as likely as their most probable SC2. Andreas Geilenbrügge, head of valuations and insights Germany explains: 'According to our current knowledge, the economic effects of the crisis will be more pronounced in 2021 than originally expected. The low point in used car markets will shift to 2021. Used-car market recovery will only start in 2022.'

With the further increased uncertainties around Brexit and the second lockdown in place, our UK team further increased the likelihood of SC4 to 75%. Anthony Machin, head of content and product at Glass's UK, confirms that the UK team 'has factored into their forecasts the changes to the furlough scheme introduced by the Chancellor, Rishi Sunak alongside a likely no-deal Brexit and the new national lockdown.'

Table 18: Risk scenarios for the impact of coronavirus

	Scenario 1 (SC1) Low risk (Risk Score 5-7) 'Swift v- shaped recovery'	SC2 Low-medium risk (Risk Score 8-10) 'Moderately quick v-shaped recovery'	SC3 Medium risk (Risk Score 11-13) 'Slow u-shaped recovery'	SC4 Medium-high risk (Risk Score 14-16) 'Deep recession, slow recovery'	SC5 High risk (Risk Score >16) 'Very deep recession, l- shaped recovery'
Austria	0%	25%	60%	15%	0%
Belgium	<u>0%</u>	<u>0%</u>	65%	30%	5%
Czechia	0%	<u>30%</u>	<u>60%</u>	<u>10%</u>	0%
Finland	0%	<u>10%</u>	<u>79%</u>	<u>10%</u>	<u>1%</u>
France	5%	55%	30%	10%	0%
Germany	0%	50%	<u>45%</u>	<u>5%</u>	0%
Hungary	0%	<u>30%</u>	<u>60%</u>	<u>10%</u>	0%
Italy	0%	10%	65%	25%	0%
Netherlands	<u>20%</u>	<u>65%</u>	<u>13%</u>	2%	0%
Poland	0%	55%	40%	5%	0%
Portugal	0%	20%	50%	30%	0%
Romania	0%	0%	<u>35%</u>	<u>65%</u>	<u>0%</u>
Slovakia	0%	<u>30%</u>	<u>50%</u>	<u>20%</u>	0%
Slovenia	0%	30%	40%	20%	10%
Spain	0%	<u>10%</u>	<u>60%</u>	<u>30%</u>	0%
Sweden	0%	<u>10%</u>	<u>79%</u>	<u>10%</u>	1%
Switzerland	0%	30%	60%	10%	0%
UK	0%	0%	0%	<u>75%</u>	<u>25%</u>

Note: Underscored, where changes to the probabilities were made vs. the previous update. Each of the five mandatory, and one optional, parameters within each scenario contributes a country-specific risk score between one and five. The minimum risk score achievable is five and the maximum 30. The scenarios are built on risk scores. Countries have based their current probability on how likely it is that each scenario will emerge. The one that carries the highest probability is the base case for each market.

Source: Autovista Group

Impact on residual values

The impact on residual values depends on the most probable scenario and country-specific circumstances. Figure 7 shows used car price development by scenario cluster, as an unweighted average and indexed. Countries have been allocated to the scenario cluster according to their highest probability scenarios. RV developments over the next two years will be only mildly depressed for SC2-countries. Developments resemble a v-shape but stretched out over two years. Towards the end of 2022, pre-crisis RV levels should be reached.

This stands in contrast to the UK, where the market impact of the depression and a likely no-Brexit deal would be felt with a delay. The drop is substantial, and the UK is not expected to recover fully until towards the end of 2022.

13 out of 18 countries expect depressed used car markets in 2022 vs. pre-crisis levels

The SC3 cluster sees a more accentuated drop continuing into 2021 and no full recovery by 2022. As this cluster represents 12 countries, we need to look into country-specific developments: in Figure 8, we sort the clusters into regional clusters. We have also compared the view given in our last update of the whitepaper, in September, and this update.

Eastern and northern European countries expect a faster recovery from the crisis than the southern European cluster. The DACH region (Austria, Germany, Switzerland) performs in the middle of the two.

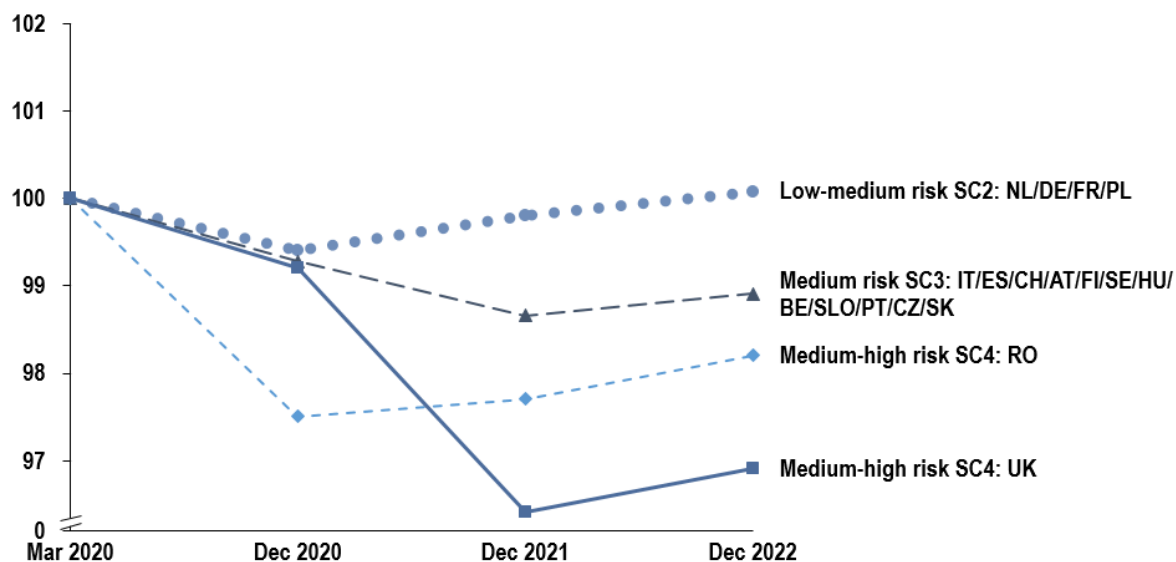
Ana Azofra, valuation and insights manager, Autovista Spain warns that the positive

momentum we have seen in many markets may end: 'After several months of used-vehicle price recovery, prices are already beginning to reflect a changing trend. Dealer stock is increasing and approaching the levels of March 2020. Meanwhile, the market is facing a second wave and the economic crisis is reflected in the negative development of unemployment figures.'

RV performance is country-specific and affected by exchange rate development and different speeds of economic recovery. We show the country-specific outlooks in Table 19. These are the main takeaways:

- 14 out of 18 countries expect less pressure in 2020 than initially expected – the only exceptions are France, Italy, Slovenia and the UK, who confirm their September outlook in this update;
- More countries expect a full recovery by 2021: Hungary, Poland, Czechia, Sweden, the Netherlands;
- 13 out of 18 countries still expect depressed used car markets in 2022 vs. pre-crisis levels;
- For 2022, the RV performance gap has widened – Spain and Italy are at the lower end, at -5.0% and -4.6%, respectively, whereas Poland and Hungary see RVs up 3.0% and 3.1%, respectively, vs. pre-crisis levels, in particular driven by rising list prices and a weaker exchange rate, along with the expectation of a more dynamic recovery and increasing demand for used cars

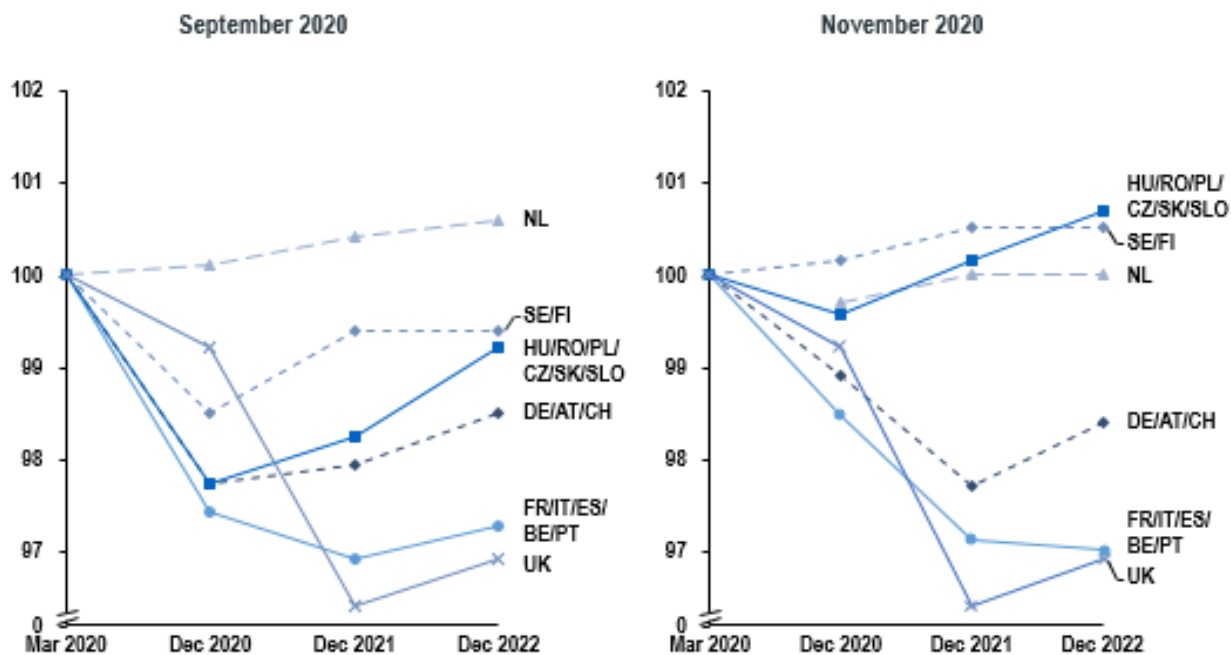
Figure 7: Used car price development by scenario cluster; UK, Romania separated out (index)



Note: These clusters represent unweighted averages of countries and do not represent country-specific forecasts. Please refer to Table 19 for the country-specific forecasts.

Source: Autovista Group

Figure 8: Used car price development by regional cluster (index); Sep vs. Nov update



Note: These clusters represent unweighted averages of countries and do not represent country-specific forecasts. Please refer to Table 19 for the country-specific forecasts.

Source: Autovista Group

Table 19: Forecast percentage change in residual values EoY vs. March 2020

	2020	2021	2022
Austria	-0.6%	-2.5%	-1.6%
Belgium	-1.0%	-1.1%	-2.7%
Czechia	+0.8%	+1.3%	+1.3%
Finland	-0.7%	-0.2%	-0.2%
France	-0.3%	-1.3%	-0.7%
Germany	-1.8%	-2.5%	-2.0%
Hungary	+1.1%	+2.1%	+3.1%
Italy	-1.0%	-4.8%	-4.6%
Netherlands	-0.3%	0.0%	0.0%
Poland	0.0%	+3.0%	+3.0%
Portugal	-1.4%	-2.1%	-2.0%
Romania	-2.5%	-2.3%	-1.8%
Slovakia	0.0%	-0.1%	-0.1%
Slovenia	-2.0%	-3.0%	-1.4%
Sweden	+1.0%	+1.2%	+1.2%
Spain	-4.0%	-5.1%	-5.0%
Switzerland	-0.9%	-1.9%	-1.2%
UK	-0.8%	-3.6%	-3.1%

*Note: Bold, where changed vs. last update. Values shown are percentage changes (not percentage point changes) in RV for 36m old cars/ 60,000km between March 2020 and December of the relevant year. For example, the RV in March 2020 is 10,000€ or 48% of the list price, the RV in December 2020 is 9,780€ or 46.94% (10,000€*0.978, respectively 48%*0.978). This results in a change of -2.2%.*

Source: Autovista Group

Conclusion

This is the sixth update to our analysis of the impact that the coronavirus will have on societies, the economy and used car markets.

Fourteen out of 18 countries expect less pressure in 2020 than initially expected: the exceptions are France, Italy, Slovenia and the UK.

Into 2021 and 2022, the impact of the economic crisis on RVs will materialise in different ways, depending on the circumstances in individual countries. Our editorial teams expect a sharper drop in RVs in the Southern European countries: in Spain and Italy, around -5% at the peak of the crisis. Austria, France, Germany, the Netherlands, Switzerland and the Nordics will not be hit as hard as the southern regions, based on the current risk assessment. We anticipate a very elastic recovery in Eastern Europe, in particular in Czechia, Hungary, Poland and Slovakia, in part due to their currencies weakening towards the Euro. RV outlooks have also improved for Romania.

The gap is widening in terms of RV outlooks. More countries (now five) expect a full recovery towards the end of 2021: Hungary, Poland, Czechia, Sweden, and the Netherlands. Yet, 13 out of 18 countries continue expect depressed used car markets in 2022 vs. pre-crisis levels.

During the 2008/2009 financial crisis, we saw drops in RVs that were substantially higher than currently forecast in our scenarios. At the time, declines of 12% (Germany) or 15% (Spain) on average across segments had built up over 12-18 months into the crisis. We confirm that we do not expect this level of impact on used car markets, as indicated in our risk scenario probabilities and RV forecasts.

Several things are different in this crisis. Governments have taken much stronger policy actions against the collapsing demand. The current economic shock is not paired with a lack of financing opportunity. In addition, after the peak of the crisis, we are seeing substantial pent-up demand as private consumers perceive the shock as temporary, and several incentive schemes support the purchase of new and used vehicles.

On the downside, a second wave of infections has hit Europe harder than many expected. More restrictions have been implemented throughout November and more are immanent. Many countries and regions have entered another (softer) lockdown. This may serve another hit to battered economies and supply chains. We expect that the currently felt strong rebound of economies will lose some of its steam towards not only towards the end of this year but into Q1 2021.

Autovista Group
5th Floor, Wellington House
125 Strand
London WC2R 0AP
UK

Email: information@autovistaintelligence.com

Tel: +44 (0)20 3897 2450

Author

Dr Christof Engelskirchen, Chief Economist, Autovista Group

**Analysts &
Contributors**

Hans-Peter Annen, Chief Editor, Autovista Switzerland

João Areal, Editorial Manager, Autovista Eurotax Portugal

Ana Azofra, Valuation and Insights Manager, Autovista Spain

Dejan Butinar, Country Manager, Eurotax Slovenia

Andreas Geilenbrügge, Head of Valuations and Insights, Schwacke (Germany)

Markus Halonen, Director of Statistics and Data Analyses, Autovista Group

Ulmis Horchidan, Chief Editor, Eurotax Romania

Zsolt Horvath, Operations Manager, Eurotax Hungary

Marcin Kardas, Head of Editorial Team, Autovista Polska

Neil King, Senior Data Journalist, The Daily Brief

Dr Anne Lange, Head of Data Science, Autovista Group

Anthony Machin, Head of Content and Product, Glass's (UK)

Robert Madas, Valuations and Insights Manager Austria & Switzerland, Eurotax

Marco Pasquetti, Forecast and Data Specialist, Autovista Italy

Yoann Taitz, Head of Valuations and Insights France & Benelux

Johan Trus, Head of Data and Valuations Nordics, Autovista

Roland Strilka, Director of Valuations, Autovista Group

Nico VanHalst, RV Manager, Eurotax Nederland

Idesbald Vannieuwenhuyze, Chief Editor and Valuations Manager, Autovista Benelux

