

The double- edged sword of EV government incentives

**Autovista
Group**....

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

July 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

Introduction	4
European incentive schemes – more pressure	7
France: high EV incentives; stimuli for used-car purchases help ease pressure on RVs	8
Germany: risk of higher pressure on EV RVs than in other markets	9
Italy: among the highest purchase incentives for EVs	10
Spain: sizeable ownership tax cut & high EV incentives; covers young used ICEs	11
UK: no Covid-19-induced scheme, currently solely on zero-emission vehicles	12
Conclusion	13

Introduction

*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. They are battling with new technologies, new competitors, the shift to zero-emission and depressed margins. The pandemic and the associated lockdowns have intensified the pressure. Recovery will take some 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, which is granted – 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 July and December 2020, VAT rates are reduced from 19% to 16% also for used cars. This will effectively drive signalled retail used-car prices on internet portals down by 2.52%. The idea of 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, like in France and to a lower 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, currently observed in France where used-car prices are rising because their purchase is incentivised by the government. The scheme will likely run out by the end of July. There is the risk that further schemes need to follow, as was the case in Italy during and after the financial crisis 2008/2009. We should also expect that schemes in France and Spain will be extended if they are exhausted too quickly.

European incentive schemes – more pressure

The existing government incentive schemes in the big European markets and the UK are diverse and show how differently countries approach the topic. We compare them in Table 1. We have evaluated the relative strength of the stimulating effects for each dimension of the scheme, for example, there is a very strong stimulating effect derived from the very high purchase incentives for BEVs and PHEVs in France and Germany.

Acquisition tax benefits are relatively small in France, Germany and Spain. Where there are company-car tax incentives, they are usually very impactful as stimuli, e.g. in Germany and the UK. We evaluated company-car tax incentives in France as “moderately” impactful as in reality they apply only to BEVs (vehicles <20g CO2/km). For the UK they also apply

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

only to “zero-emissions vehicles”, but the magnitude of government support is higher than in France.

Our evaluation of the schemes covers previously existing schemes on top of the newly added schemes. The UK is the only market that has not introduced additional incentives post Covid-19 lockdowns, as discussions are ongoing.

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				

France: high EV incentives; stimuli for used-car purchases help ease pressure on RVs

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 BEV/PHEV (<50g CO₂/km), up to €5,000, and new and used ICE 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 likely exhausted end of July; not too likely, that it will be extended. 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. 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 down, 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, compensates the increasing pressure to some extent.</p>

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 2020, 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 PHEV or BEV 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 on new cars. Only BEV and PHEV benefit. Very high 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 electric vehicles 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>Gladly, the German COVID-19-additions to the existing incentive scheme continue to focus on EVs. This limits the impact on used-car prices of ICE vehicles, although the magnitude of incentives on new EVs will create some negative spillovers. So 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>

Italy: among the highest 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. (1) €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; (2) €1,500-€2,500 for emissions between 21g and 70g CO₂/km; (3) 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 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 as long as they emit less than 111g CO₂/km. There is a small risk of spillovers due to the lower transaction prices for new EVs that may decrease the demand for used ICE slightly and thus impact prices. The small tax benefit associated with EVs may negatively impact demand for used ICE.</p>

Spain: sizeable ownership tax cut & high 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; there are plans by the government to adjust. Ownership-tax reduction already in place for longer 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"> (a) Plan MOVES II, specific for new and young used (registration in 2020) BEVs and PHEVs (<45K): €5,000 plus up to €500 if car >seven years (€1,000 if car >20 years) is scrapped; (b) Plan RENOVE - Hybrids, MH, GLP, GNC new and used vehicles (registered in 2020) <35K: scrappage of car > 10-year-old car is required, up to €2,000 incentive and €500 if car scrapped >20 years; and (c) 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 (b). 	<p>Low-medium pressure for 2020/21</p> <p>The biggest potential risk for pressure on RVs stems from the 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, thus adding to the pressure. The acquisition tax exemption puts some mild pressure on used electric vehicles. A positive and moderating effect comes from the longer-term ownership tax reduction and a lack of company car tax benefit.</p>	<p>Low-medium 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. This adds some pressure to RVs. Together with the negative spillovers from EV incentives to ICE used-car demand we allocate the pressures on the same low-medium area as for EV, although they may be situated on the lower side of the range.</p>

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 vehicle: 0% in 2020-2021, 1% in 2021-2022, 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>

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 on new electric vehicles (i.e. BEVs and PHEVs), which is why the expected negative impact on residual values 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. France is the only country that substantially incentivises the purchase of used ICE vehicles, in particular petrol, which effectively compensates for some of the discount-induced pressures. Spain incentivises the purchase of very young used ICE vehicles as well. Germany's

company car tax benefits may drive too many PHEVs into the market and Germany's VAT reduction, which covers also used cars, creates a direct reduction of signalled retail used car prices of around 2.5%. Italy provides slightly higher purchase incentives than Spain but both schemes are bullish. The UK has not yet adjusted their scheme post-COVID-19, but discussions are ongoing. So far, the UK's scheme is creating the least risk for RVs.

When talking about alternative powertrains, many things come to mind. Let's start with an overview of what's out there. The closest powertrain to our current internal combustion engine (ICE) is the hybrid, which comes in two forms: the full hybrid with an electric range of several kilometres, and the plug-in hybrid, which – depending on model and battery – can do around 50km purely powered by electricity.

Further from today's ICE, hydrogen is what many believe to be the long-term solution. Due to its sustainable method of production – as a by-product of many industrial processes – sources of hydrogen are plentiful (Critical here is the storing and the transportation of this delicate and highly explosive product.) Ranges for hydrogen powered vehicles are – depending on model – not far from that of traditional ICE models.

Finally, there is the battery electric car, the powertrain that has a substantial chance of long-term success, given the leaps that are happening in battery technology and the investment going into it.

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

