

Creditreform Rating

Recent Developments in the European Car Market and Auto ABS Issuance Activity

Semi-Annual Report 2019

Financial Research
September 2019



Management Summary

1.

After reaching its inflection point last year, the European car market has eventually started feeling the pinch owing to the impact of the Worldwide Harmonized Light Vehicle Test Procedure (WLTP) that extended a bit longer than expected in addition to the secular pressure on diesel car sales amidst the deteriorating regional economic outlook. For the first time since 2014, new car sales in the European Union (EU) declined by a low single-digit in the first half of this year. Admittedly, it was not Europe alone; a synchronized auto downturn was witnessed globally with China and India bleeding heavily. However, the US was relatively resilient, thus overtaking the EU to become the second largest market behind China.

2.

In Europe, Germany bucked the trend, displaying a strong recovery post the introduction of WLTP, while delivering a growth of 0.5% y-o-y in the first half and around mid-single digit in July. Germany upped its market share by 83bps to 22.6%. Surprisingly, diesel car sales outperformed petrol in Germany, defying the overall trend in the European car market. All the other key auto markets, including the UK, France, Spain and Italy, saw a dwindling demand for new cars, especially for diesel, with losses ranging from low single-digit to just over mid-single digit in the first half of 2019. The share of diesel car sales in the EU saw a steep fall from 35.9% at the end of 2018 to 31.0% in the first half 2019, as increased sales in Germany were more than offset by the sharp and continued decline in diesel vehicles across the four other key auto markets.

3.

The image of diesel cars is apparently improving, especially in Germany, owing to less negative coverage, ramping up of cleaner diesel cars production in the wake of an ambitious CO₂ emission target to be achieved by 2021. Inconsistent with the concession offered by the EU to Germany, the government has resisted in enforcing the planned comprehensive ban on Euro 5 diesel engines in Stuttgart, citing a significant drop in pollution levels. The brief lifting of diesel cars ban in Madrid before it was reinstated also sent a message that a mass prohibition could have political implications. Thus, the affinity of diesel cars is unlikely to fade anytime soon unless auto manufacturers achieve significant economies of

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scale in producing affordable electric cars to lure consumers and steer material growth to meet the CO2 emission target by 2021. The emission targets require heavy investment in alternative fuel-based vehicles. However, buyers remain hesitant to shift towards electric cars in light of the lack of charging infrastructure and relatively higher cost. Against this backdrop, automakers face significant challenges in producing efficient cars.

4.

After witnessing a broad stability in 1Q19, residual values for diesel cars in the five key markets have once again experienced some weakness barring Germany during 2Q19. France and the UK displayed weaker performance amongst others. With the rise in new diesel car volumes and corresponding increases in market share in Germany, residual values have increased at a faster rate than petrol in the first half of 2019.

5.

The European auto ABS market was quite dull in the first half as the new securitization regime and uncertainties associated with it put auto financing in the back foot, with negligible issuance in 1Q19. A strong pick-up was visible in 2Q19 with about 9.6bn euros issuance in 1H19, yet that corresponds to just one-third of the last year's total issuance of 27.8bn euros. To start with Volkswagen printed the first "Simple, Transparent and Standardized" (STS) eligible auto ABS issuance, yet it failed to galvanize other captives.

6.

Historically, captives have dominated the European auto ABS market with their share in new auto ABS issuances accounting for an average of around two-thirds of the total issuance. However, captives underperformed in the first half, issuing two-fifths of the total volumes and the remaining three-fifths by non-captives led by Santander. Volkswagen raised 1.5bn euros, followed by Renault (1.0bn euros) and Daimler (~600mn euros). Volkswagen and Santander continued to dominate, capturing almost half of the market share between 2000 and 1H19. We assess that captives tend to underperform in times of high economic uncertainty.

7.

The rating profile of European auto ABS improved in the first half, though the volumes rated in the period were extremely thin accounting for just one-third (8.2bn euros) of the total issuances rated last year and a decline of similar magnitude from 12.0bn euros printed in the first half of 2018. Over four of the five issues (84.5%) amounting to 6.9bn euros were rated AAA/Aaa, reflecting a 15 percentage points improvement in relation to the first half of 2018. Historically, major auto ABS issuances fall in the coveted triple A rating category, comprising over four-fifths.

8.

In view of the near-term outlook, auto ABS issuance is likely to experience a better second half as issuers gradually adjust to the new regulation as evident from the steady pick-up in the primary activity since late March 2019. Yet, the issuance volumes would be still significantly lower for the full year as compared to 27.8bn euros recorded in 2018 as the finalization of key technical standards with regard to the new securitization regime remains pending. Thus, uncertainties related to new regulation are likely to continue until the entire technical standards get published in the Official Journal, which we expect to materialize not before late 2019, maybe even in the first half of 2020. That said, we expect issuance volumes to comfortably outpace the level of 12-15bn euros seen during the financial crisis and reach closer to 2011 levels of around 22bn euros. The key risk is that issuers are gradually stepping in the used car market, which faces excess supply risk that could put pressure on residual values.

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1. The European Car Market at a Glance

As expected, the European auto markets continued their weak momentum from where they had left off since the implementation of the new emission test, the Worldwide Harmonized Light Vehicle Test Procedure (WLTP) in September 2018. In the first half of 2019, car sales in the European Union (EU) fell by 3.1% to about 8.2mn units, with a steeper fall being witnessed in June (-7.8% y-o-y). However, not only the regional markets have been facing ongoing challenges. The global auto markets too suffer the downturn, with the largest market, China continuing to experience more pain. Chinese auto sales plunged by 14.0% to 9.9mn units in the first half, though the decline was 7.0% in June. India was down by 10.3% between January and June. The US experienced just a 1.9% decline to 8.4mn units in the first half, thus overtaking the EU to become the second largest automobile market.

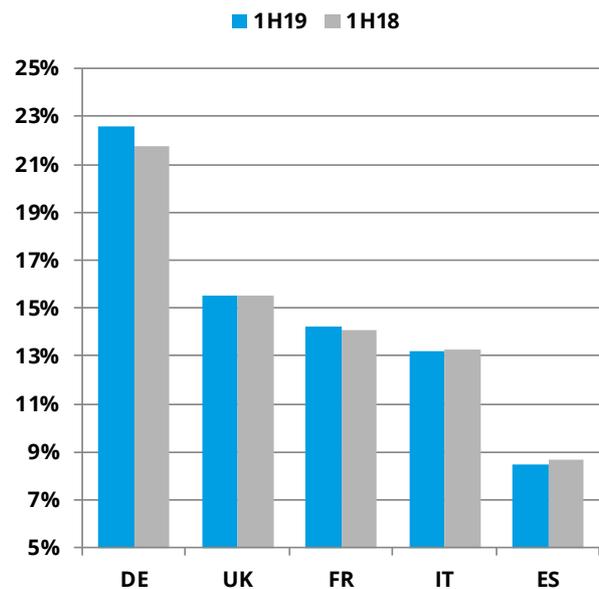
Being a cyclical industry, the auto market has been closely mirroring the slowdown in the global economy caused by several factors including the US-China trade war, Brexit uncertainty and rising geopolitical risks. Such external shocks, especially escalating trade tensions, had affected more the export-oriented euro area economy as manufacturing activities dwindled in the region as well as globally, led by the protracted downturn in the auto industry. Germany, which appeared to be less prepared in the wake of the implementation of WLTP back in September 2018, nevertheless outperformed the other four key European auto markets, including the UK, France, Italy and Spain in this year's first half.

New car registrations in Germany ended on a positive note with a 0.5% y-o-y gain versus the other four key EU markets – France (-1.8%), Spain (-5.7%), Italy (-3.5%), and the UK (-3.4%). This allowed Germany to increase its market share in

the first half of 2019. France also benefitted in terms of market share due to a relatively lower decline in new car sales (see [Figure 1](#)).

Figure 1: Key auto markets in the EU

Percentage of market share in the EU based on new car registrations



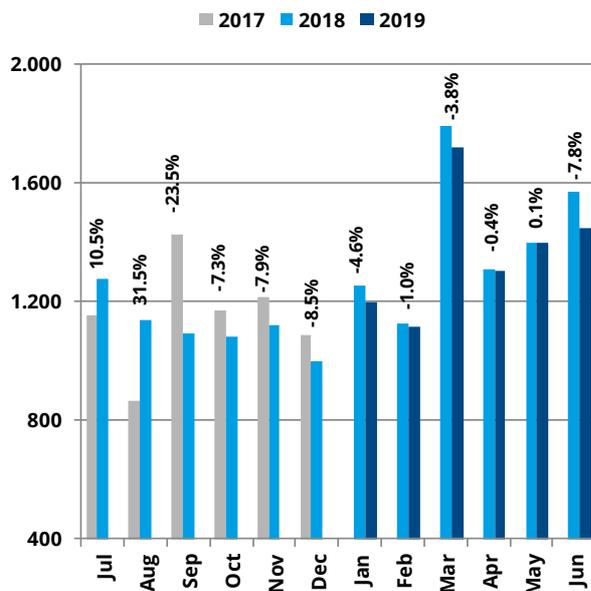
Sources: ACEA, Creditreform Rating

In the European auto market, the fallout of WLTP persisted longer than expected, resulting in car sales slipping into a negative territory in the first half for the first time since 2014 and the tenth consecutive month of declines since the introduction of the new emission test (see [Figure 2](#)). To be sure, the implementation of WLTP in last September had pulled forward demand for cars as manufacturers offered an attractive discount to offload existing inventories. This led to a significant surge in car sales in the first half of 2018, which made the comparison quite tough with further sales pressure stemming from fewer working days in June this year as well as relatively weak economic growth in the region. The regional car markets are apparently affected the most by the US-China trade war, Brexit fears, and the US threat to impose tariffs on European carmakers.

Moreover, the impact of the diesel emission scandal remained intact as evidenced from the pervasive fall in the demand for diesel-powered vehicles.

Figure 2: Persistent decline in car sales in EU

New car registrations in thousand units, and yearly growth rates



Source: ACEA, Creditreform Rating

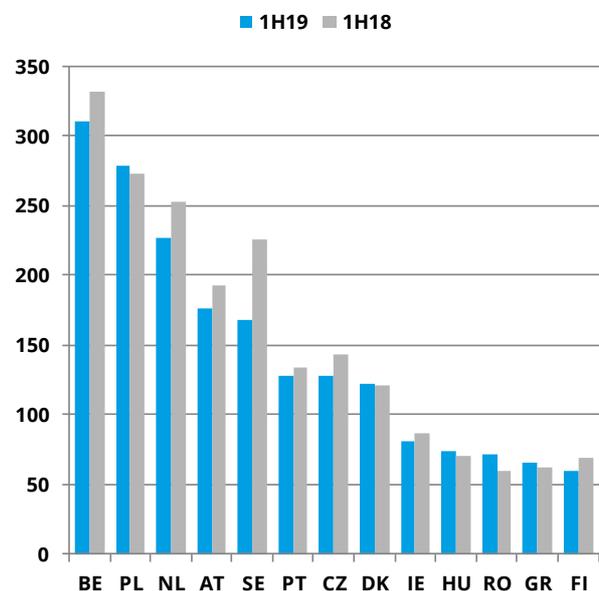
The structural changes in the auto industry, with the growing shift towards fuel-efficient vehicles, especially electric cars, have also influenced consumers' decision to postpone purchasing cars. Consumers remain rather reluctant to shift to electric cars in light of the limited charging infrastructure and relatively higher cost. Thus, petrol-powered cars remain popular with buyers, yet the growth in this space has turned to be sluggish due to the weak economic outlook and diminishing consumer confidence.

The other European auto markets, particularly in the Central and Eastern European regions, which happened to be the key driver for fresh car sales, also succumbed to the global economic slowdown (see Figure 3). Romania and Hungary stood out, growing at 19.2% and 5.4% respectively. The

remainder of the EU countries exhibited either tepid growth or a decline in new car sales. The Czech Republic underperformed substantially, losing 10.6% y-o-y. Barring marginal growth in Denmark, Nordic countries too felt the heat with Sweden losing one-fourth in the first half as compared to the same period a year ago.

Figure 3: Impact also felt in other key auto markets in the EU

New car registrations in thousand units



Source: ACEA, Creditreform Rating

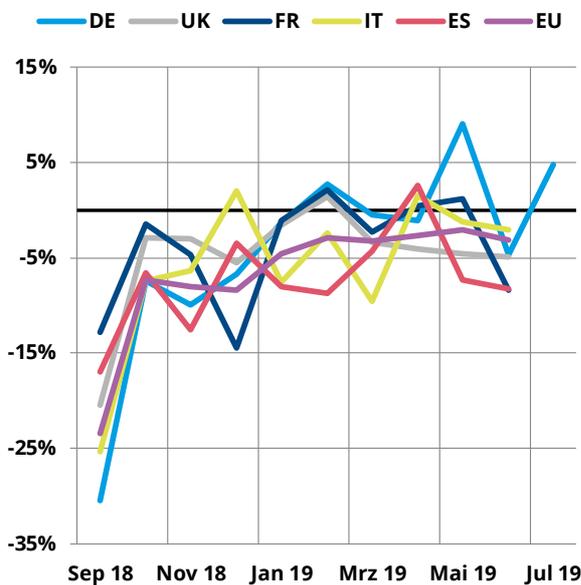
Overall, the first half was challenging for the regional auto markets. The German market, however, stood out, surprisingly seeing a more vivid post-WLTP recovery (see Figure 4). The strong recovery in German car sales led by robust demand for diesel cars has intrigued several investors with a myriad of views about the outlook for the diesel trend in Germany.

In Germany, the demand for diesel cars outpaced its petrol counterpart in the first half amidst a healthy debate about improving the image of diesel vehicles through introducing cleaner diesel cars. According to the German Motor Transport Authority (KBA), registrations of new diesel cars

in the country rose 3.0% y-o-y in the first half, which led to an expansion of the market share of diesel to 32.9%, up from 32.1% in 1H18. By contrast, the market share of petrol-based cars fell from 63.1 to 59.4%. Hybrid and electric vehicles continued to display a strong performance, growing at 69.1 and 80.2% y-o-y respectively. Yet, their market share accounted for only 5.6% and 1.7%.

Figure 4: Germany displays a strong recovery

Year-on-year change in new car registrations



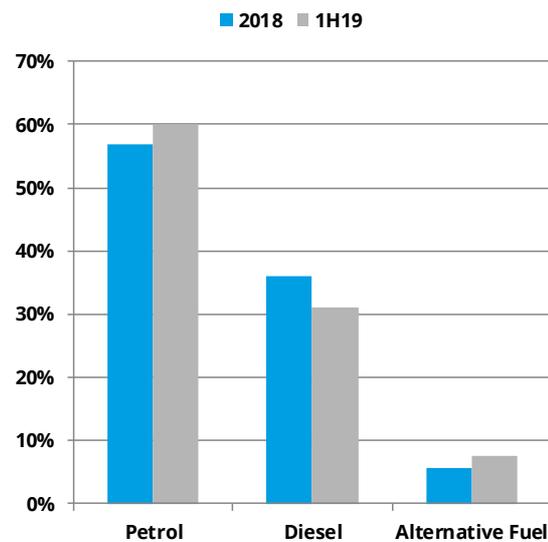
Source: ACEA, Creditreform Rating

There were several factors driving demand for diesel powertrains in Germany, defying the trend of a secular downward pressure on diesel sales in Europe. Most importantly, the ban of older diesel vehicles in Stuttgart following on the heels of French-style yellow vest protests had political implications, with the German government favoring to impose fines rather than enacting laws to ban older cars. The EU's concession that Germany would be allowed to impose bans only in cities that exceed a nitrogen oxide volume of 50 micrograms has also brought some breathing space to carmakers and encouraged producing cleaner diesel vehicles. Against this background, the gov-

ernment has resisted enforcing the planned comprehensive ban on Euro 5 diesel engine in Stuttgart, citing a significant drop in pollution levels. The diesel ban planned for cities, such as Frankfurt, Berlin, and Hannover, has also been technically circumvented, yet some of the roads that are seen breaching the EU pollution limits are likely to face a prohibition of older diesel cars. Furthermore, German auto players learnt a hard lesson from WLTP and are now in a better position for WLTP homologation as evidenced from increasing trade-in incentives for older diesel vehicles for newer ones.

Figure 5: Alternatives gaining ground

New car registrations in the EU as a percentage of total sales based on the fuel mix



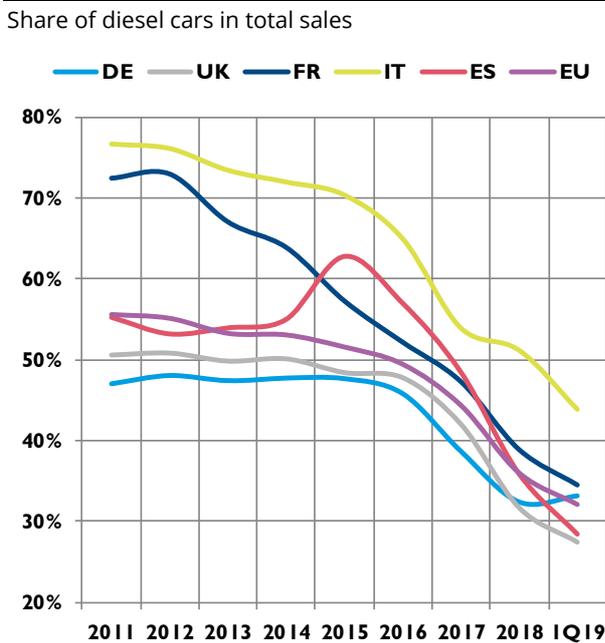
Source: JATO, Creditreform Rating

Thus, new car sales registrations in the first half painted a better picture for Germany and in particular, for diesel vehicles. For Europe as a whole, however, the diesel crisis remained quite relevant, with new diesel registrations falling significantly by 21.0% y-o-y and losing a market share of roughly five percentage points to 31.0% in the first half this year (see Figure 5). Meanwhile, petrol-based cars moved up the ladder to gain a market share of three percentage points to

60.0%. Moreover, the demand for electric cars rose by 20.0% y-o-y, with the alternative fuel-based vehicles comprising 7.5% of total registrations in the EU. This segment needs to grow at a much faster rate to leverage on the ongoing pressure on diesel cars as well as to meet the ambitious EU's emission targets for 2021, 2025, 2030 and net zero emission by 2050 (see below).

The sharp decline in the diesel market share was primarily led by Spain that saw a steep fall of 7.4% between January and March 2019, followed by Italy (-7.3%), France (-4.4%), and the UK (-4.3%). The UK now has the lowest share of diesel vehicles amongst the five key markets (see Figure 6). Italy remains more vulnerable as diesel cars still comprise 44.0% of the country's new vehicle sales.

Figure 6: Dwindling diesel shares all over Europe



Source: ACEA, Creditreform Rating

Last year's introduction of the ban on older vehicles entering in the key central areas of many cities across Europe is now apparently receiving a backlash. In early July 2019, the newly elected

mayor of Madrid has decided to reverse the ban, allowing even relatively high emission cars to access a designated area (Madrid Central), which has been placed out of bounds since late November 2018. However, following massive protests from environmentalist, the court has reinstated the low emission zone that aimed to prohibit polluting vehicles entering in Madrid through imposition of fines. Meanwhile, Germany is apparently not favoring the diesel ban as evidenced from the increasing traction for diesel cars in the country lately. On the other hand, France has been rather hard on diesel cars, as the government recently decided to exclude labelling even the latest diesel engines (Euro 6 standard) in the cleanest category. Paris banned diesel cars aged 13 years and over starting this July.

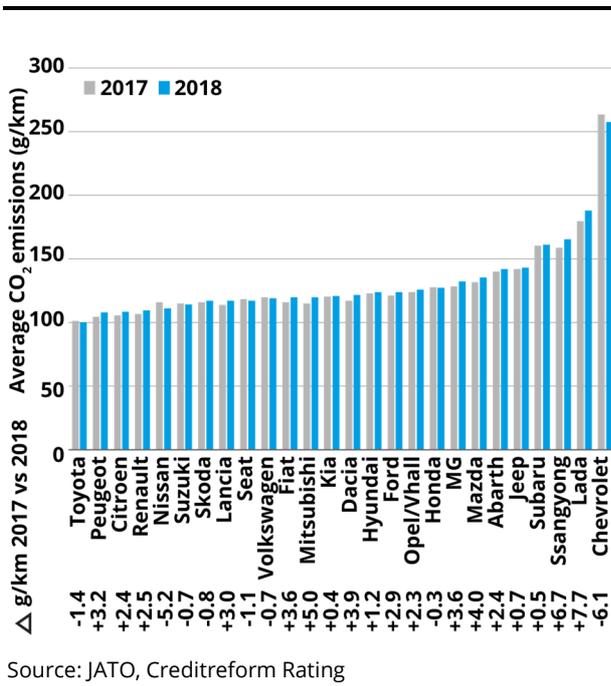
The mixed views over banning diesel vehicles across countries, given their unfavorable political implications, also imply that the demise of diesel cars may not come anytime soon unless auto manufacturers achieve significant economies of scale in producing affordable electric cars to attract consumers and steer material growth in this space to meet the stringent CO2 emission target of 95g/km by 2021. The respective phase-in will commence from the beginning of 2020.

European auto manufacturers face an uphill task to comply with the EU regulation, given that the emission target necessitates them to reduce the CO2 level by 21% at the end of 2021 from the 2018 level. This will also require carmakers to improve the fuel efficiency by over one-fourth from the current level. According to the EU Commission, the average CO2 level in the EU instead rose by 1.9g to 120.4g/km in 2018. Since 2010, the carbon emission level decreased by just 22g. Hence, it seems very challenging to reduce the emission level by 25.4g by 2021 to reach the target of 95g/km.

As revealed by JATO data, except Toyota, all major players witnessed an increase in emission levels

last year (see Figure 7). With decreasing demand for diesel vehicles, the 2021 target appears ambitious, forcing several companies to apparently prepare for penalties for a potential breach of the regulatory threshold. Auto players may reportedly have to shell out about 34bn euros in penalty by 2021.

Figure 7: Average CO2 emission (volume weighted) for key brands



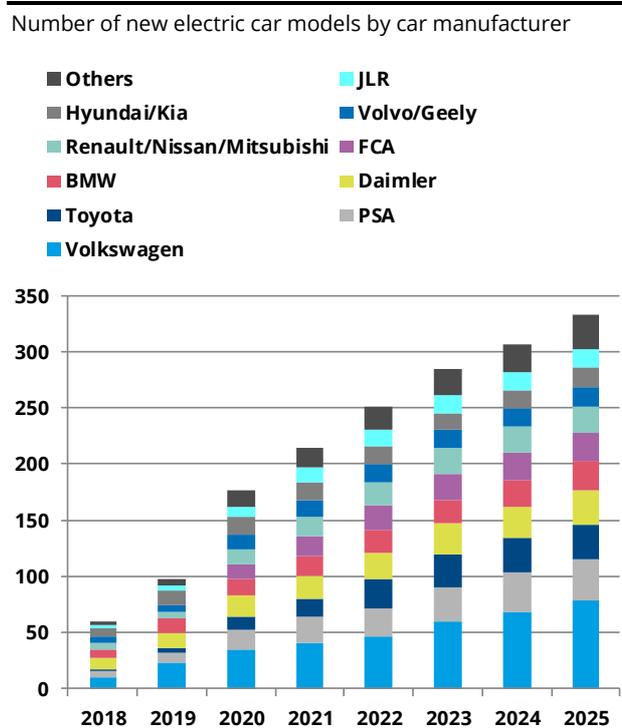
Source: JATO, Creditreform Rating

The emission targets for 2025 and 2030 are even more rigorous, requiring a further reduction of CO2 levels by 15% and 37.5% from the 2021 level respectively – calling for heavy investment in alternative fuel-based vehicles. To avoid massive penalties, we believe that car manufacturers have little choice but to transit as early as possible. Those players having significant financial flexibilities, such as Volkswagen, remain on the front foot in the electric vehicle (EV) space in Europe.

As illustrated by an analysis of the European Federation for Transport and Environment (T&E), EVs, including battery electric vehicles (BEV), plug-in hybrid electric vehicles (PHEV), and fuel cell

electric vehicles (FCEV), would add up to 333 models and about 4mn vehicles by 2025 (see Figure 8). Meanwhile, the market share is expected to spike from 4% in 2019 for combined BEV and PHEV to 22% by 2025. That said, demand for electric cars would depend on how well the infrastructure set up for charging and affordability pan out in Europe going forward.

Figure 8: Envisaged plans in extending the European electric car model range



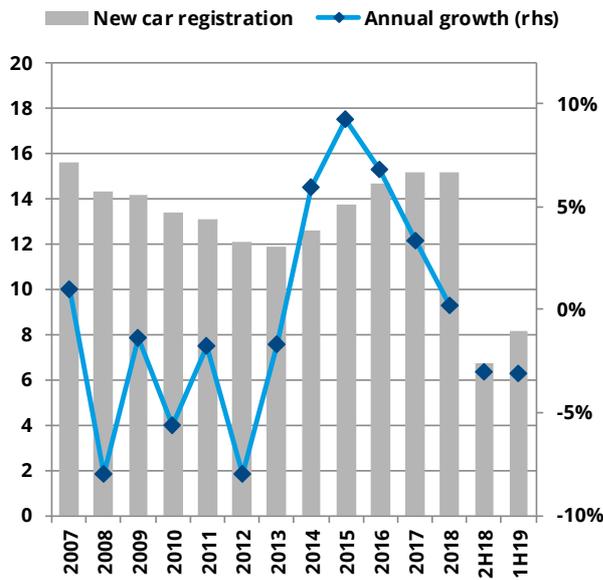
Source: T&E, Creditreform Rating

Summing up, the European auto market faces significant headwinds ahead in terms of production challenges in light of the demanding emission test. However, the overall picture of the auto sector is not as grim as it was during the Great Financial Crisis and the European debt crisis, when new car sales plummeted by 8% in 2008 and 2012 respectively – owing to weak consumer sentiment and an excess supply of cars (see Figure 9). Today, the situation is different, with the industry undergoing structural adjustment to produce more fuel-efficient cars. This is likely to

induce production challenges, although the ongoing tepid demand for cars should help to adjust production levels automatically to some extent.

Figure 9: Situation not quite as gloomy as in previous episodes

New car registrations in Europe in million units, and yearly growth rates



Source: ACEA, Creditreform Rating

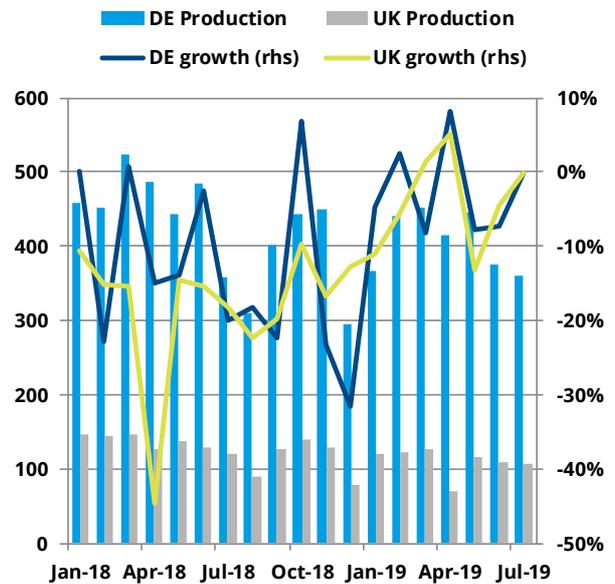
The EU car production declined by 5.1% in 1Q19, mainly due to weak domestic as well as external demand, and changes in models due to the disruption caused by the WLTP. While the comparison of the second half of 2019 versus the corresponding period in 2018 would be easier, a noticeable improvement is not expected amidst the weak economic environment with Brexit and political risks in the euro area alongside rising protectionism, with the auto sector being always at the center of political concern. Car production in the UK thus fell for the 14th consecutive month through July, though Germany saw a marginal growth in July (see Figure 10).

As overall production is on the declining trend, we expect new car registrations will also adjust, declining marginally in 2019 for the first time

since 2014 after having reached the peak in 2018. The downside would be limited as diesel cars regain traction in Germany with greater homologation of diesel cars.

Figure 10: Weaker car production hinting to adjustment in registration figures

Number of produced cars in thousand units of new car sales, and yearly change

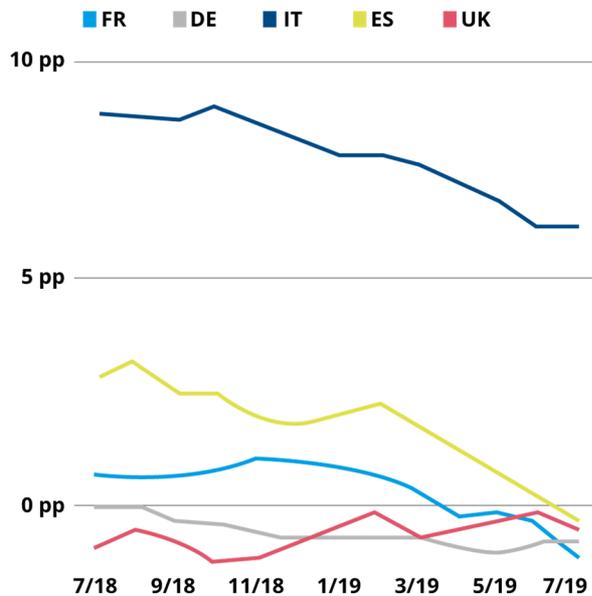


Source: Refinitiv, Creditreform Rating

After having witnessed broad stability in 1Q19, residual values for diesel cars in the key five markets have once again experienced some weakness with the exception of Germany (see Figure 11). The sharp fall in the registration of new diesel cars in the UK over the past three years could ease the pressure on residual values going forward. In Germany, diesel residual values seem to have bottomed out with increased homologation of diesel vehicles, less negative media coverage, and apparent policy reversals in Germany and Spain.

Figure 11: Diesel RVs in Germany have slightly improved

Trade residual value advantage of diesel over petrol in percentage points



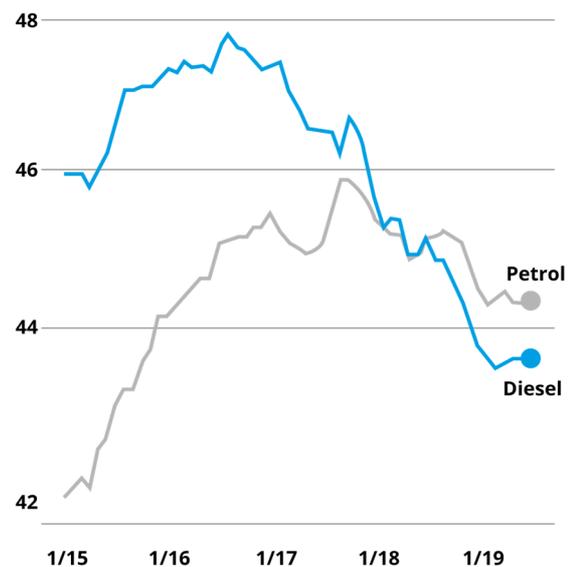
Source: Autovista, Creditreform Rating

With the rise in new diesel car volumes and corresponding increases in market share in Germany, residual values have increased at a faster rate than petrol in the first half of 2019. This was because of lower availability of cheaper young used diesel cars that are less than one to two years old and lower supply of typical three years and older vehicles. On the other hand, supply of petrol cars that were de-fleeted during 2013-16 alongside rising volumes of new petrol car registrations in the recent past years have been affecting petrol residual value. As per Autovista, the supply of petrol cars that are less than one year old in the used car market was more than twice that of diesel cars, significantly below its pre-crisis level of 1.3 times. Average residual values of diesel cars that are 36 months and older, and have run 60,000 km are now retaining almost as much of their value as petrol cars, at 43.7% and 44.4%, respectively. That being said, since the

second half of 2018, petrol residual values continued to command a premium over diesel in Germany (see Figure 12).

Figure 12: Diesel RVs rising somewhat faster than petrol RVs in Germany

Petrol and diesel residual values as a percentage of original list price, for 36 months and older cars/60,000km



Source: Autovista, Creditreform Rating

However, we doubt that this trend would continue in the near to medium term due to the possibility of renewed supply pressure in the used car market. New diesel cars had witnessed significant registrations in 2016 and as they became three years older, the likelihood of seeing a return of these cars in the used car market remains high.

In the UK, residual values of cars have been supported until lately by the resilient used car market as buyers continued to look for cheaper cars against the backdrop of Brexit uncertainty and recent moves to hike excise duties on cars. However, of late, residual value of cars in the UK has been declining as old cars; especially three years are coming back to the used car market. At the

same time, last year's extension of lease contracts for many vehicles had begun to find the used car market, resulting in supply pressure. As a result, Autovista reckons that residual values will decline in 2019, with petrol RV declining by two percentage points as compared to one percentage points for diesel cars due to their limited supply. However, the pressure on RVs is anticipated to eventually ease going forward, due to a continued shrinking of new car market and resulting reduced supply.

2. The Auto ABS Markets in Europe

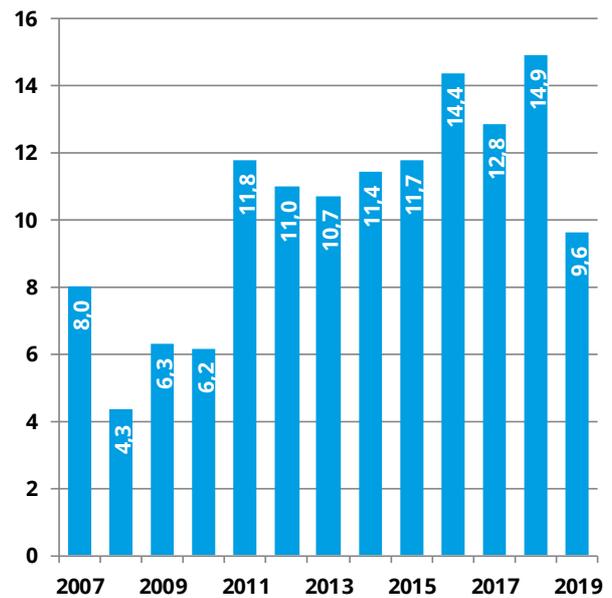
The first half of 2019 was quite anemic in terms of the auto ABS issuance activity in the primary market, making up just one-third of last year's total issuance of 27.8bn euros. On the whole, auto ABS issuances came in at 9.6bn euros in 1H19 (see Figure 13), corresponding to a 35% y-o-y decline as compared to 1H18 when the issuance volume totaled 14.9bn euros. What is more, the volume seen in 1H19 represents the lowest reading since the first half of 2010 and lies well below the ten-year average since 2009 (11.0bn euros).

Thus, the WLTP-led disruption and broader weakness in the auto industry amidst the uncertainty over the new European securitization regime set a weak tone in the primary issuance activity. There were negligible issuances until the end of 1Q19 when Volkswagen eventually opened a new era for the European ABS market, complying with the newly introduced "Simple, Transparent and Standardized" (STS) status. Markets welcomed the issuance as evidenced from the strong bid-to-cover ratio of above 2x for both the notes (Class A and Class B). Unsurprisingly, the tight supply of new issuance in the quarter also helped to boost the demand for auto ABS. Nevertheless, key captive issuers failed to build the momentum, as only few names including Renault and Daimler tapped

the primary market with relatively low volumes. This might also be due to the saturation in the new car markets.

Figure 13: Significantly lower issuance activity in the current year

Volume of new auto ABS issuances in the respective first half of the year, in billion euros

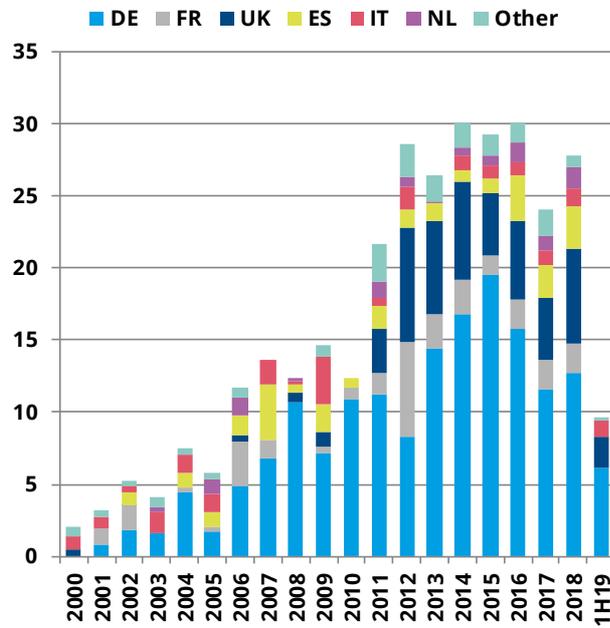


Source: Refinitiv, Creditreform Rating

Almost two-thirds of the new issuances were originated in the region's largest auto ABS market, Germany, just over one-fifth from the UK and one-eighth from Italy, amongst others (see Figure 14). In terms of volumes, Germany saw an increase from 5.2bn euros in 1H18 to 6.2bn euros in 1H19, mirroring the better performance of the domestic new car market led by the slightly improved image of diesel vehicles. However, the ongoing weakness in other key markets led auto issuances to zero in France, Spain, and the Netherlands in the first half. The UK had some activity, witnessing about 2.1bn euros, yet delivering lower volumes in comparison to 2.7bn euros during 1H18.

Figure 14: Development of the auto ABS issuance activity in Europe

Volume of new auto ABS issuances in billion euros, by origin of collateral

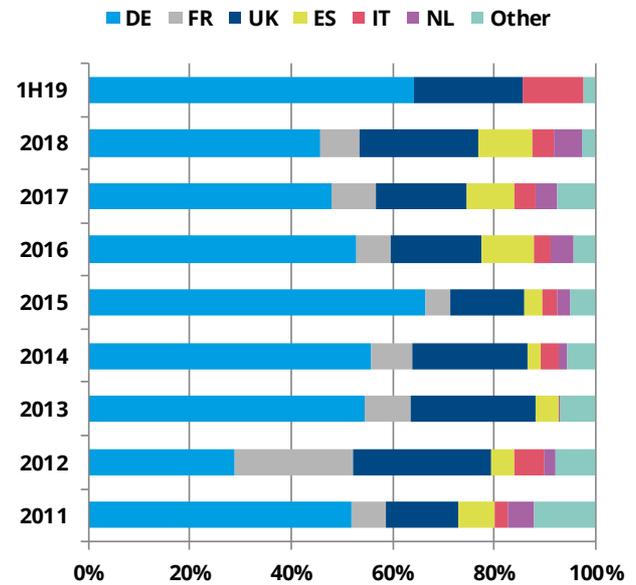


Source: Refinitiv, Creditreform Rating

Meanwhile, the UK share of new auto ABS issuance at one-fifth in 1H19 was above its long-term average market share of around 16%, benefiting from the lackluster activities in other core markets (see Figure 15). Germany and the UK remained the top originators of collateral, with the former taking a major pie of the share at over half (52.2%) of the entire European auto ABS market based on the data from 2000 to 1H19. This corresponds to 167.1bn euros of issuances in Germany alone, followed by the UK (49.4bn euros), France (29.9bn euros), Spain (25.5bn euros), Italy (19.8bn euros), and the Netherlands (10.1bn euros), amongst others. The total auto ABS issuance in Europe stood at 320.1bn euros between 2000 and 1H19.

Figure 15: German collateral continues to dominate

Share in auto ABS deals by origin of collateral, measured by annual issue volume



Source: Refinitiv, Creditreform Rating

3. Originators of Auto ABS

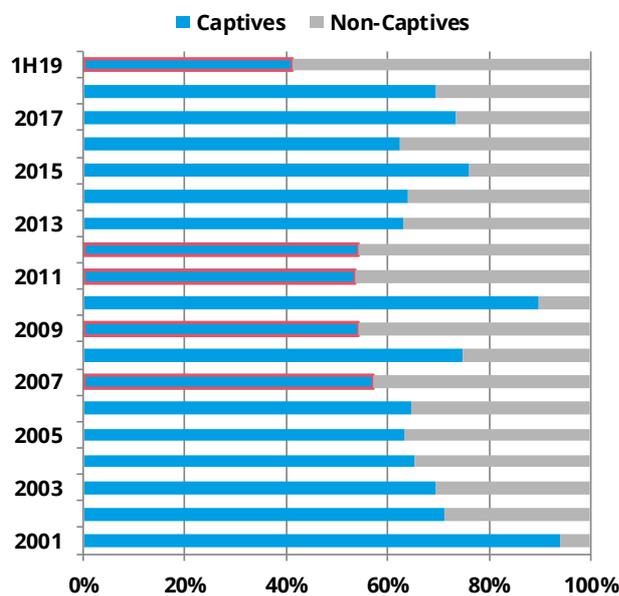
Historically, captives have dominated the European auto ABS market with their share in new auto ABS issuances accounting for an average of around two-thirds of the total issuance. Captives are originators, which are affiliated to automobile manufacturers. However, for the first time, captives got into the back foot in the first half of this year, issuing just 4bn euros. This corresponds to two-fifths of the total volume raised in the first half of the year, versus 9.1bn euros in the same period last year, accounting for a share of nearly two-thirds of new issuances back in 2018 (see Figure 16).

In terms of issuance activity, we assess that captives tend to become more vulnerable amid downturns in the auto industry in times of a sharp economic slowdown. On the other hand, non-captives remained busier than captives in

the primary market in such an uncertain economic environment. The share of captives in the annual total issuance volume thus declined significantly during the euro area debt crisis in 2011 and 2012, the Great Financial Crisis in 2007 and 2009, and in the current environment.

Figure 16: Captives appear to be more vulnerable to economic distress

Share in the volume of new auto ABS issues by originator



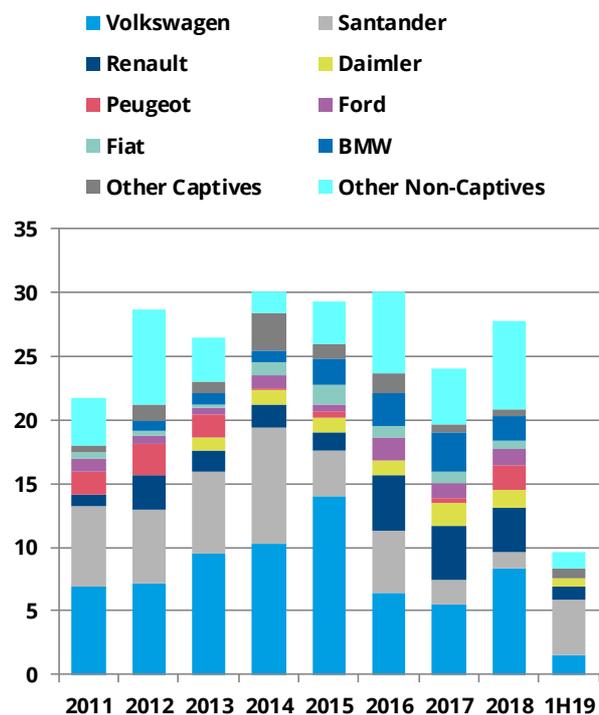
Source: Refinitiv, Creditreform Rating

Auto manufacturers are obviously undergoing several headwinds, including regulatory pressure related to STS compliance, and Brexit uncertainty, coinciding with the bleak regional as well as a modest global economic outlook. Meanwhile, new car registrations have already reached their peak in 2018 and started falling beginning this year (see above). Against this backdrop, auto players are seemingly looking to expand in the used car market, which somewhat remains stable for now and is expected to see more supply resulting from the boom period being witnessed over the last three years. However, the excess supply in the used car market would have a significant bearing on the residual value of vehicles, especially for diesel cars in the backdrop of the

shift in producing and promoting cleaner electric vehicles. As captives increase their lease-based securitization in the used car space, they are also exposed to the risk associated with the declining residual value of cars.

Figure 17: Santander leading the pack in the first half of the year

Volume of new auto ABS issuances in billion euros



Source: Refinitiv, Creditreform Rating

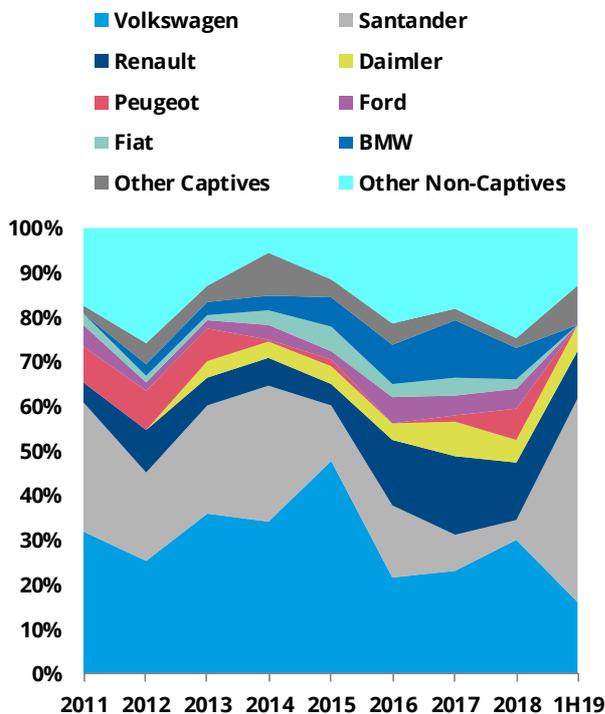
Unsurprisingly, Volkswagen remained on the forefront, raising 1.5bn euros through June. Still, this is significantly sub-par of Volkswagen's standard and way below 4.5bn euros issued in the first half of 2018 (see Figure 17). Volkswagen plans to raise about 16bn euros globally through various forms of financing in the second half, of which Europe is expected to see somewhat close to 6bn euros. Even if we assume majority of European financing via auto ABS, Volkswagen is likely to fall below last year's volume of 8.3bn euros. Other key issuers in first half were Renault for 1.0bn euros, followed by Daimler for just 600mn euros. We hardly witnessed the activity

from other auto majors, such as BMW, Fiat, Ford, and Peugeot.

Non-captives are also apparently expanding in the used car market. Non-captives outperformed captives in the first half of the year, raising 5.6bn euros, which were almost two-thirds of the total issuance during 1H18 (4.3bn euros). Santander continued to dominate amongst the non-captive issuers. In the first half, the bank issued 4.4bn euros, reflecting 46.0% of the total volumes (see Figure 18). After having witnessed a slump in terms of the issuance activity in the last two years, the Spanish bank came back strongly in 2019 to post issuance of 4.4bn euros, outperforming Volkswagen and thus boosting its market share.

Figure 18: VW and Santander remaining dominant in the European auto ABS market

Share in the yearly issuance volume by originator



Source: Refinitiv, Creditreform Rating

Other non-captives priced 1.2bn euros, which were 13.0% of the total volumes issued during the same period. Volkswagen alongside other

captives could catch up in the second half once the fog over the securitization regulation clears. The gap between Volkswagen and Santander is still wide with the former's domination unequivocal in the European auto ABS market. Together, both hold nearly half of the regional auto ABS market. Renault, Peugeot, and Ford are other key players, even though their market shares remain relatively small.

4. Rating Profile of Auto ABS in Europe

In Europe, the demand for safe-haven assets remained unabated as evident from the prevailing environment of negative government bond yields that dominate the headlines these days. Against this background, auto ABS also play a crucial role in harboring investors who are looking for safety with at least positive spreads as this category of asset class is largely tagged with AAA/Aaa ratings and is considered to be no less than safe-haven assets.

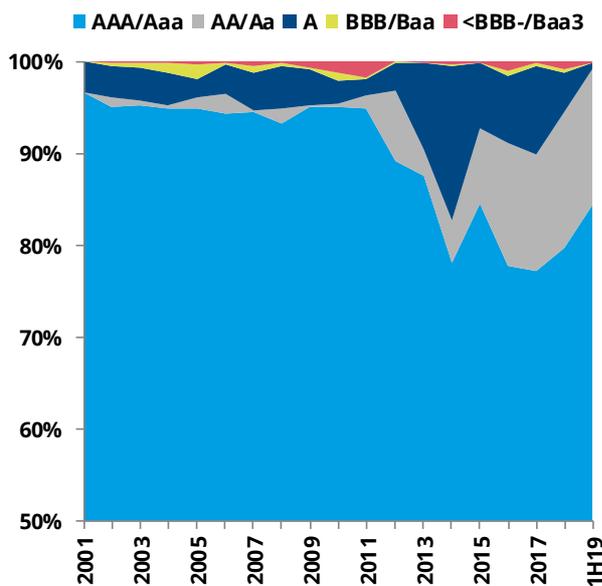
The rating profile of European auto ABS has further improved in the first half of 2019, even though the volumes rated in the period were extremely thin, accounting for just one-third (8.2bn euros) of the total issuance rated last year and a decline of similar magnitude from approximately 12.0bn euros printed in the first half of 2018. Over four of the five issues (84.5%) amounting to 6.9bn euros were rated AAA/Aaa in 1H19, reflecting an improvement by 15 percentage points in relation to the first half of 2018 (see Figure 19).

Historically, the majority of auto ABS issuances fall in the coveted triple A rating category, comprising over fourth-fifths between 2000 and 1H19. However, the share of AAA/Aaa-rated auto ABS securities has declined from the level achieved in 2015 and before, when roughly 95.0% of all European new auto issuances ideally used

to receive the triple A rating. This figure came down to 84.6% in 2015 and slipped further to 79.8% in 2018, before improving to a level close to 2015 in the first half of 2019. In absolute terms, the AAA-rated issuances fell from 23.1bn euros in 2015 to 20.6bn in 2018, underscoring high single digit decline but an improvement of over one-fifth from the issuance volumes in 2017. However, we believe that the overall rating profile of auto ABS in Europe still remains robust.

Figure 19: Excellent rating profile of auto ABS in Europe has improved more recently

Initial ratings (S&P, Moody's, Fitch) include senior and subordinate tranches, share in the yearly issuance volume, measured by the issue volume of all rated notes



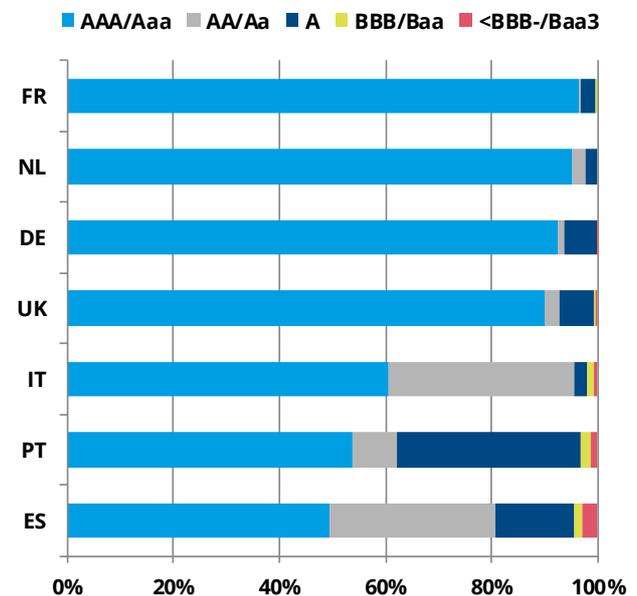
Source: Refinitiv, Creditreform Rating

Meanwhile, the gradual decline of issuance in the AAA/Aaa rating space is being offset by the higher prevalence of AA/Aa ratings. The AA share rose from 8.2% in 2015 to 14.6% in 2018, and further to 14.7% in the first half this year, highlighting the growing appetite for auto deals even down the way through the capital structure driven by yield-craving investors. Also, it mirrors the growing diversity with regard to the country of collateral and country ceiling issues.

The proportion of the single A rating category continued to shrink, closing the first half 2019 at a marginal 0.7% of all the rated issues, after 4.4% in 2018, 9.6% in 2017, 7.2% in 2016 and 7.1% in 2015. The issuance volumes at the lower end of the investment-grade category (BBB/Baa) remained volatile over the past few years with the first half witnessing just 11.2mn euros (~0.1% of the rated universe) versus 89.0mn euros (~0.7%) in the corresponding period last year. Thus, over the past few years, more auto ABS tranches with an AA/Aa rating were issued, seemingly attracting investors seeking relatively higher yields in addition to the protection offered by asset-backed securities.

Figure 20: French auto issues followed closely by Dutch and German collateral

Initial ratings (S&P, Moody's, Fitch) include class A and subordinate tranches, measured by the issue volume of all rated notes between 2000 and 1H19



Source: Refinitiv, Creditreform Rating

It is evident from Figure 20 that the rating profile varies depending on the origin of the collateral. Extending the horizon to 1H19, France continues to hold the largest percentage of auto ABS notes with the highest credit quality (96.5%). Following

closely are auto ABS tranches backed by collateral from the Netherlands (95.4%), Germany (92.5%), and the UK (89.9%). Meanwhile, deals originating from peripheral countries spread across rating categories with Italy holding three-fifths of the new issuance volumes within the AAA/Aaa category and one-third in the AA/Aa space. Portugal held over half of the issuance (53.8%) being rated at AAA/Aaa and over one-third (34.7%) in the single A rating category, which is the largest share in this category in Europe. Spain held almost half of the deals rated at AAA/Aaa, followed by AA/aa that comprised 31.2% and single A with about 15.0%.

5. Perspectives for the Issuance of European Auto ABS

The European auto securitization market is likely to experience a better second half in terms of the primary issuance activity as borrowers gradually adjust to the regulatory changes implied by the STS securitization. While the fresh regime continues to take a toll on issuers amidst uncertainty associated with it, signs of a gradual improvement in the primary market with simple, transparent and standardized (STS) labelled issuance are being witnessed since late March. The new regulation that came into effect since 1 January 2019 is quite demanding in terms of the requirements for due diligence, risk retention by underwriters, and more homogenous collateral. It also requires originators to provide repositories of underlying loans data aimed at providing transparency while ruling out synthetic and re-securitizations for now. The efforts mandated behind to get the STS status is overly cumbersome and the new provision is applicable to all market participants, including originators, sponsors, institutional investors, special purpose entities, competent authorities and third party STS verifiers.

The European Banking Authority (EBA) published the final guidelines on STS criteria for securitization on 12 December 2018. However, investors as well as issuers are still not fully familiar with the new STS provisions as several important technical standards are yet to be finalized. Most importantly, the standard on underlying homogenous exposures is yet to be published in the Official Journal, the regulatory technical standards (RTS) on risk retention are not yet adopted by the European Commission (EC) and the standards on disclosure relating to underlying exposure is pending for approval by the EC.

This means that market participants will have to continue to deal with the uncertainties tagged with the new regime. We expect that the final publication of the regulation in the Official Journal might take some more time, as even after the adoption by the EC, it will go to the European Council and the Parliament for their approvals, which would delay the publication. The securitization will likely see the final publication not before late 2019, maybe even in the first half of 2020. As a result, we expect issuance volumes to be relatively low for the full year in comparison to last year, but should comfortably outpace the level seen during the financial crisis and reach closer to 2011 levels of around 22bn euros.

The risk is though tilted to the downside as Brexit would automatically lead to classify UK securitizations as non-STS, given that the new regulation excludes securitizations whose originator/sponsor/SPV is not based in the EU. Risk weighting for the STS tag would be lower than non-STS securitizations, implying that investors such as banks and insurers would require lower capital buffers. This is likely to prompt investors to adjust their portfolios, thus affecting the regional securitization market.

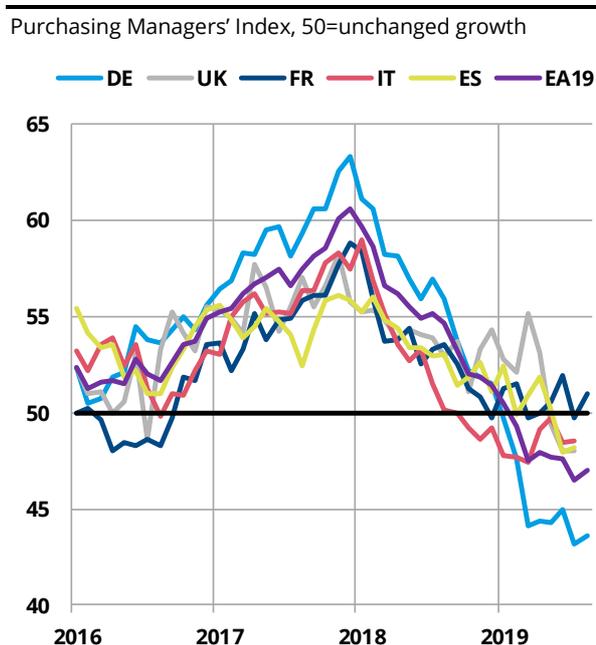
We note that the regional auto industry faces several challenges beyond regulation. Germany's July sales were quite strong, considering the

tough comparison with last year resulting from the households' decision to bring forward car purchases, ahead of the implementation of WLTP. Notwithstanding that Germany seems to be bucking the trend, the overall auto outlook is undeniably still weak given the broader weakness in the European economy, rising political risks, gradually increasing odds for a hard Brexit, and the constant threat from the US on the auto tariffs front.

In view of the near-term macro outlook, the persistent weakness in the manufacturing activity poses significant challenges in the form of contagion risk from manufacturing to the broader euro area's economy, where economic growth has halved from 2.5 and 2.2% y-o-y in 1Q18 and 2Q18 respectively to 1.2 and 1.1% in this year's first and second quarter. Having said this, a recession in the euro area is not in the cards this year. We expect real GDP to expand by 1.1% this year and by 1.2% in 2020, albeit these aggregate figures somewhat mask the development in the euro area's member states. Thus, we forecast Italy to stagnate in 2019 (0.1%) and Germany to post only tepid growth (0.6%), while France is likely to grow stronger (1.4%), and even more so Spain (2.3%).

The region is facing a manufacturing recession as evident from continued contraction in the PMIs, with Germany taking the biggest hit owing to the weak external demand caused by a slump in its key end markets, especially China and the UK (see Figure 21). PMIs have been on a declining trend over the past several months due to waning new export orders and inventory stocks. Eventually, the German economy contracted in 2Q19 and now faces recessionary risks given the ongoing pressure on its exports. With the UK heading for a hard Brexit, German exports may take a further hit, potentially bringing more pain to the economy.

Figure 21: Manufacturing PMIs deteriorating rapidly



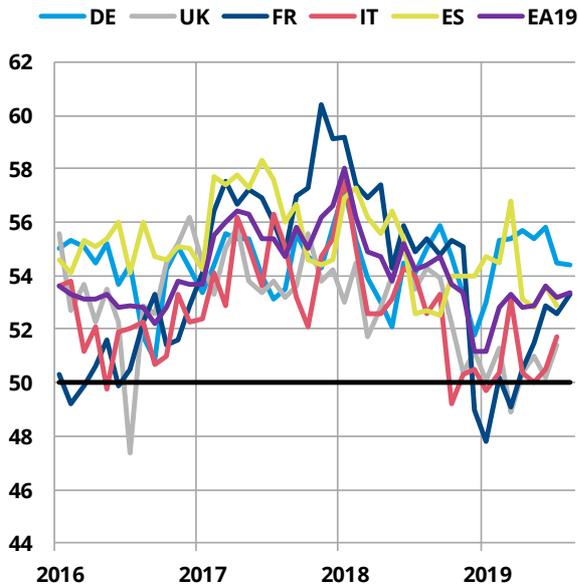
Source: Refinitiv, Creditreform Rating

On the other hand, German domestic demand remains strong and most of the euro area economies are experiencing similar strength on the domestic demand front due to solid employment and wage growth. This is evident from the continued expansion in services activity, which stays robust in Germany and France (see Figure 22). For quite some time, there has been a divergence in manufacturing and services activities. A strong services activity is indeed helping the euro area to tread water. The sustainability of the ongoing decoupling between these two sectors against the backdrop of interdependences between manufacturing and business-related services is yet to be seen. Likewise, the manufacturing-intensive Italian economy is reeling, with its manufacturing sector under pressure, and additional risks posed by political instability. France and Spain are showing some resilience, even though their growth has slowed in 2Q19. The French and Spanish economy appear somewhat more resilient, as their reliance on external markets for their

manufacturing goods is somewhat lower as in Germany and Italy.

Figure 22: Services PMIs point to robust domestic demand

Purchasing Managers' Index, 50=unchanged growth



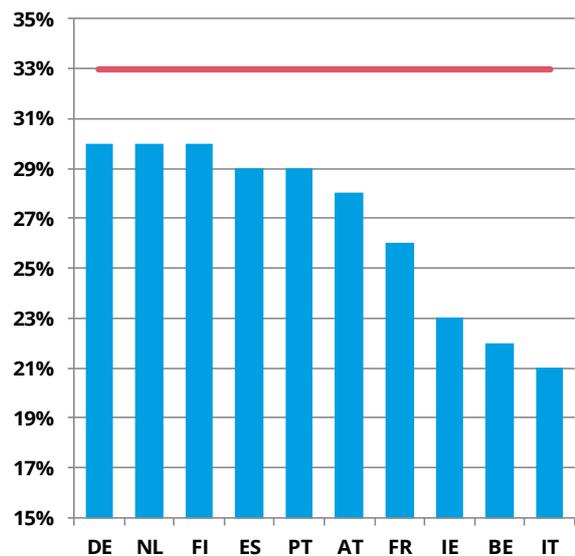
Source: Refinitiv, Creditreform Rating

The euro area economy is supported by the ECB, which braced for another round of powerful stimulus measures. During its meeting in July, the central bank has extended its forward guidance on the refinancing rate to keep it at the current level at least through the first half of 2020. In the wake of increasing economic downside risks and declining inflation expectations, the ECB took additional expansive measures at the latest meeting of the Governing Council on 12 September. As expected, the interest rate for the deposit facility was decreased by 10 basis points to -0.5%. In addition, it was decided to resume net purchases under the APP in a monthly amount of 20bn euros as from 1 November. The net purchases will not end until shortly before the ECB raises its key interest rates. A first increase in key interest rates should not be expected before 2021 - not only in the euro area, but also in the United States and the UK.

That being said, we are somewhat skeptical about the effectiveness of the ECB war chest. From our point of view, recent and possible further monetary policy measures should have a limited impact on economic activity and consumer prices. It seems too tempting to assume that the mere announcement of further measures alone will increase the confidence of households and companies going forward. Rather, we believe that the hope that the ECB will revive growth in the euro area is likely to be disappointed as it has fought for so long for a sustained recovery of the euro area economy, and is nearing the limit for government bond purchases, which is limited to one third of each member state's debt (see Figure 23). Indeed, it is rather up to national authorities to step up the urgently needed structural reforms in order to boost the growth potential of their economies and reduce structural unemployment.

Figure 23: ECB's government debt purchases nearing to reach technical limit

Outstanding government debt holding as percentage of total debt, and issuer limit (33%)



Source: Refinitiv, Creditreform Rating

To be sure, the recent ruling by the European Court of Justice to allow the ECB more flexibility

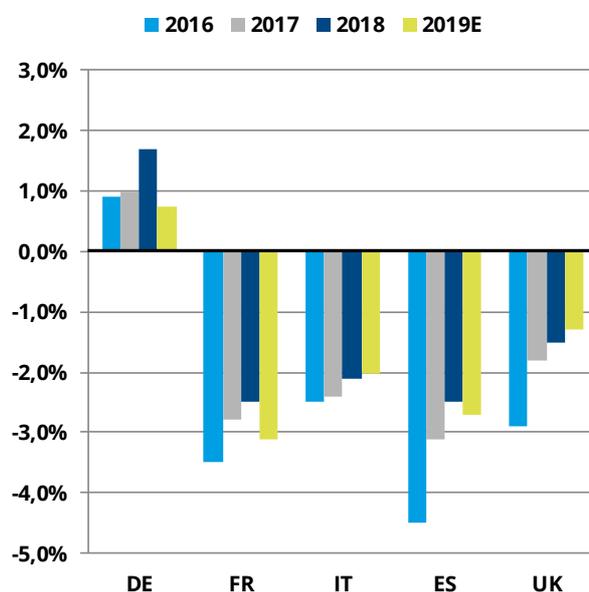
in making use of all tools on its bond purchase program should give some relief to the ECB. The ECB had increased the issue limit from one-fourth at the start of the public sector purchase program (PSPP) in March 2015 to one-third by September 2015. With hindsight, it looks like the ECB might reckon to increase the ceiling to create more headroom for buying government bonds from its member countries or expand the scope of its APP beyond the existing asset classes, including ETF equities in our view.

Hence, financial conditions in the euro area are likely to remain favorable as the ECB has become increasingly dovish. Concurrently, the third targeted long-term refinancing operations (TLTRO) will kick off in September 2019 and will end in March 2021. We believe that the take-up of consumer credit is likely to remain robust, backed by improving labor market conditions.

Moreover, we continue to expect a more expansionary fiscal policy stance in the euro area going forward (see Figure 24). The major boost is likely to stem from cuts in direct taxes, social security contributions, and higher government expenditure in some countries. However, the magnitude of fiscal loosening is projected to be small in 2019, led by France and Italy. Germany plans for a smaller surplus, but there have been growing calls for the country to provide economic stimulus as it teeters on the edge of a technical recession. The German Finance Minister has eventually hinted for an extra spending of about 50bn euros in times of economic crisis. The UK spending is rising as it prepares for Brexit and as per the Office for Budget Responsibility, the UK's fiscal deficit could rise to 1.6% in case of stress scenario that entails a no-deal-Brexit.

Figure 24: Fiscal policy to ease ahead

Budget balance as % of GDP



Source: Eurostat, EU Commission, ONS, Creditreform Rating

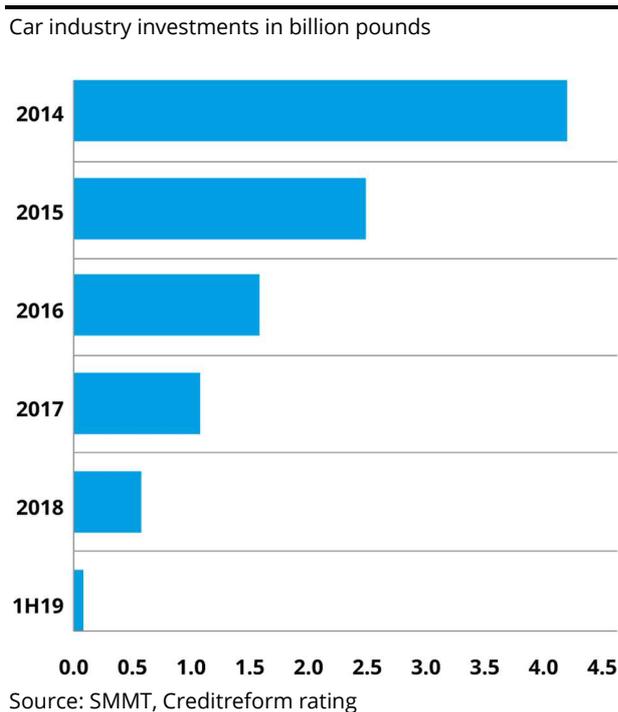
The economic situation in the UK has markedly worsened over the last quarters, as evidenced from the contraction of 0.2% q-o-q in 2Q19 (1.2% y-o-y), versus expectations of stagnation by the Bank of England. After showing resilience for much part of the past few years amidst the protracted Brexit uncertainties, the UK's economic fundamentals have started deteriorating especially from late last year as it approaches the first Brexit deadline at the end of March 2019. The strong rebound in GDP for 1Q19 at 0.5% was not sustained, as it was largely driven by an increased stacking of inventories, in particular amongst manufacturing firms, ahead of the UK's originally envisaged departure deadline (31 March).

As the departure date was extended to 31 October 2019, firms instead ran down those inventories with a slowdown extended in the manufacturing sector led by car production as auto players pushed forward their usual summer shut-downs for maintenance to April. Private and government consumption continued to contribute positively to GDP in 2Q19 with an additional

boost stemming from net trade, mainly due to a slump in imports led by an unabated depreciation of the pound. In particular, weak investment dragged down economic growth, plummeting by around one-fifth in 2Q19.

In the context of extremely high Brexit-related uncertainty, the UK economy is likely to remain volatile ahead with a downside bias. The Brexit uncertainty continued to take a toll on the UK business investment with the car industry feeling the pinch as fresh investment fell to just 90mn pounds in the first half as compared to 347mn pounds last year, due to the fear of disorder Brexit (see Figure 25).

Figure 25: Investment activity in the UK car industry plunged



Looking ahead, we expect the British economy to further lose steam, anticipating GDP growth of 1.2 and 1.3% in 2019 and 2020 respectively, with domestic demand remaining the main driver. The key risk to the UK economy remains a hard Brexit and the odds are increasing, following the appointment of Boris Johnson as Prime Minister. He

keeps insisting to exit by 31 October with or without a deal. Cabinet members under Johnson's leadership largely comprised those hard Brexit supporters, and there still appears to be a deep division within the Conservative party as well as within the Labour party over Brexit. This is evident from the ongoing twists and turns over Brexit and the range of possible outcomes. PM Johnson failed to call for a snap election in mid-October, which was aimed at securing a no-deal Brexit, as he did not get enough majorities in the House of Commons. Quite a few members from his own party either abstained or did not vote for an early election. Instead, the parliament has passed a bill, aiming to thwart the UK from leaving the EU without a deal on 31 October. As per the bill, PM Johnson might have to appeal for an extension before 19 October, which would push back the deadline to 31 January 2020. This bill is awaiting for an approval from the Royal assent.

For now, PM Johnson has prorogued parliament until 14 October while still determining to take the UK from the EU on 31 October even without a deal. Our base case scenario is that the deadline will extend until the end of January next year, and by now in the process of this ever long negotiation over Brexit, we observe that the majority of the country's lawmakers are united over a deal Brexit rather than a disruptive exit.

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