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High Yield Automotive 2019 Outlook: Volume I

China Auto Market: The Slump Could Be Longer Than You Think

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- We were recently in China and met with multiple industry participants in the auto space. Our high-level takeaways are that 1) sentiment on the domestic auto sector skews negative into 2019, given the macro setting and muted consumer outlook; 2) suppliers would be under pressure as OEMs plan for a difficult year; and 3) lower-tier OEMs will continue to cede share to their well-capitalized and premium peers.
- We are expecting a soft 1H19, given a tough y/y comparison, but have lower confidence predicting the path beyond, reflecting various policies, their flow-through to consumer outlook and credit availability. We believe the slump could extend beyond 2019 driven by significant sales pull-forward from incentives in the previous years, a scenario that is not in the base case for companies under our coverage.
- From a macro perspective, China is juggling structural deleveraging and a slowdown of economic growth, while pushing through supply-side reform targeting SOE and managing the trajectory of the property market. Barclays China economist is projecting growth of 6.0-6.3% in 2019 (see *China 2019 Outlook: Lower growth, higher hopes*), with risk tilted towards the downside.
- The average consumer appears to be under pressure, with lower disposable income, tied primarily to high property prices, and the muted economic prospects have affected sentiment. Retail sales (most notably autos) have slowed, while CPI dropped to a six-month low below 2% and PMI reached the contraction threshold in November.
- Incentives specific to the autos have been discussed and could provide short-term sentiment relief (as it did earlier this week). However, given the average vehicle age of 4.4 years in China, we do not expect auto sales to turn the corner until consumer sentiment improves. CAAM expects a flat 2019 at ~23.6mn light vehicle units, and excluding growth in EV, traditional vehicle sales would decline 2-3%, a more relevant metric for suppliers.
- Broader fiscal stimulus may not come before the annual National People's Congress meeting in early March. VAT and corporate tax cuts, as well as further infrastructure spend, are among the items under discussion; however, mounting pressure from an aging demographic and the urgency to deleverage before the current cycle ends makes us believe that such decision presents a dilemma for the authorities.
- Within our universe, we highlight DLPH (28%) and TEN (15%) are among the most exposed to China within our official coverage. The share shift to both larger and premium OEMs will like continue as China reduces overcapacity (~40% utilization in auto manufacturing), a notable headwind for DLPH, which has enjoyed growth with lower-tier OEMs.

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EXECUTIVE SUMMARY

China Is Near (If Not at) the Top of the Concern List, 1H19 Will Be Difficult

Light vehicle sales in China were down in 2018, the first annual drop since 1990. The pace of decline has accelerated throughout 2H18, and without broader fiscal stimulus that effectively boosts disposable income and improves consumer sentiment, we see little support for auto sales in 1H19, and the performance gap could widen, given the relative strength at the beginning of 2018. IHS is planning a 2% increase (incorporating potential incentives) in 2019, while CAAM was bracing for a flat year. For reference, our equity counterpart Brian Johnson (see *link*) is expecting 2.5% decrease in China for 2019.

Consumer Balance Sheet More Stretched and Credit Availability Pulled Back

The average consumer is shouldering higher debt on his or her balance sheet, and overlaid with the less bullish outlook for the economy and increasing rhetoric from the trade war, consumer sentiment turned more negative towards year-end. The absence of a trade resolution, continued uncertainty about the direction of property prices and disappointing investment returns in the local stock markets have made consumers wary of committing to other large ticket spending, as many are tied to higher long- and short-term debt. In addition, the broader push for macro deleveraging, specifically the 1H crackdown of the P2P platforms, has had a negative effect on auto sales (Figure 17).

Stimulus (Auto-Specific and Macro) Has Been Discussed but May Disappoint

We highlight three possible stimuli: the reduction of vehicle purchase tax, a rural vehicle purchase incentive and broader VAT or corporate tax reform. We believe the signal from the government to stem the decline in auto sales could help sentiment, but the outcome of incentives could vary, given the sales pull-forward from the previous incentives and the government's structural deleveraging into the end of the cycle. Barclays China Economist Jian Chang believes aggressive fiscal expansion is unlikely (see *China Fiscal Policy: Higher expectations, constrained reality*), and expectations of tax cuts may be misplaced, given the risk of fiscal expansion at this juncture of the cycle.

Premium and Larger OEMs Are Taking Share

Premium brands headlined by BBA (an acronym for BMW, Mercedes-Benz, Audi) were the bright spot in auto sales, as premium car manufacturers continue to enjoy strong brand equity among middle-class consumers. As the government pushes through supply-side reform, we see structural reduction of manufacturing capacity (~40% utilization) in autos, primarily from less competitive domestic OEMs; as such, we expect a share shift from lower-tier OEMs to continue.

Long-Term Story Still Intact, but Landscape Could Evolve

We are more optimistic on auto sales growth in the longer term, given low vehicle ownership per capita and penetration opportunities into lower-tier cities. The downside risks, in our view, are growth of the underdeveloped used car market, a rapidly evolving ride-sharing landscape and the government's determination to fight pollution. We are wary of supplier participation in the EV landscape within our universe. Chinese OEMs (BYD, Geely and "auto new forces") have largely developed their own supply chain in the initial leg of growth. While the supply chain may be outsourced, we view suppliers that do not have proven capabilities (most of our universe) as disadvantaged.

SHORT TERM OUTLOOK

A Bumpy 2019 Ahead for Auto Sales and Profitability

- For 2018, the China Association of Auto Manufacturers (CAAM) is projecting a 3% decrease (December 14 release), compared with its +3% y/y increase in the beginning of the year; however, the last two weeks of December appear to have been more challenging than anticipated. Chinese Passenger Car Association (CPAC) data show total sales were down 6% in 2018 and 19.2% in December (data collected from the OEM report – see Appendix).

- For 2019, CAAM projects a flat year in auto sales y/y, with a softer 1H followed by a gradual recovery through the year. Given the volume slowdown, we are concerned that OEMs will be under more prominent profitability pressure. There have been more aggressive price mark-downs from OEMs into 2019, which could reflect internal planning for more material weakness.

Embracing for a Weaker December and Tough 1H19

While the official data have yet to be released, we expect December to be extraordinarily weak, as top OEMs, which had outperformed by wide margins for most of the year, had a slowdown in the month. SAIC, the largest OEM in China, posted a 10% sales decline in December, while GM China posted a 19% decline in 4Q (15% decline in 3Q). Profitability across the industry appears to be under pressure as incentives step up meaningfully, given the need for inventory reduction into year-end.

FIGURE 1
Expectations for 2019

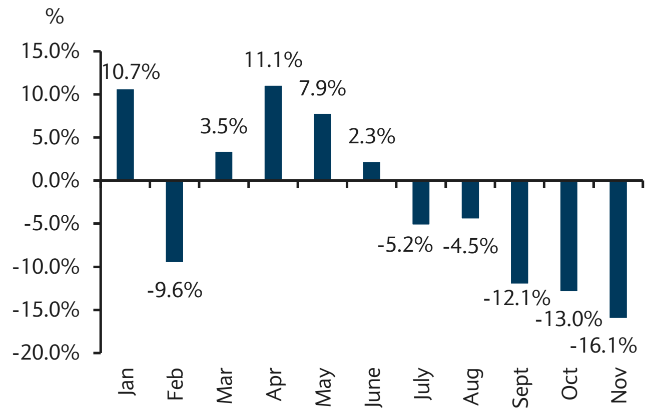
	CAAM	Geely	VW	IHS
2019	0%	0%	Slight Growth	2-3%
1H19	Down	Down	Down	N/A

Source: Bloomberg, Barclays Research

Light vehicle sales were down 12% and 13% in September and October (typically strong months around the National Day Holiday), followed by an accelerating decline of 16% in November (Figure 1). Further weakness in December, reflected in CPCA data (-19.2%), could be attributed to the sales pull-forward in the prior-year period (which includes purchase tax incentives) and continued inventory de-stocking at the dealers. In the last two years (2016 and 2017), there were significant sequential sales increases from October to November (approximately +10% m/m) and December as the industry expected stimulus to be pulled back into the new year (ie, the car purchase tax, Figure 3).

FIGURE 2

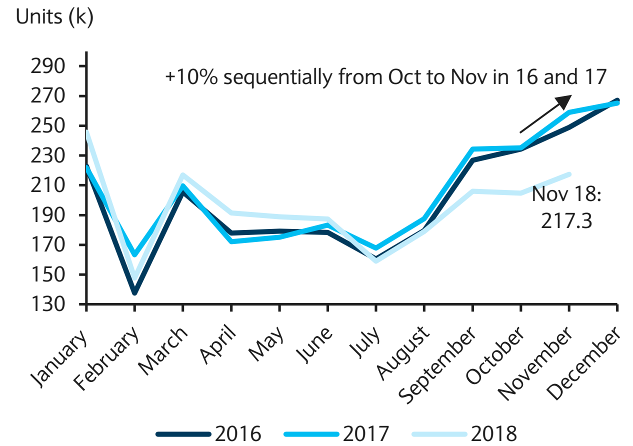
2018 YTD China Auto Sales Took a Turn in the Summer



Source: CAAM, Barclays Research

FIGURE 3

Sequential Cadence into 4Q Appears to Be Difficult



Source: CAAM, Barclays Research

Difficult Setup into 1H19, Low Confidence in 2H Recovery

Without broader fiscal stimulus that boost discretionary/disposable income and a meaningful improvement in consumer sentiment, we see little support for auto sales in 1H19, and the performance gap could widen, given relative strength in the beginning of 2018. The comparison will not be easier before June 2019 (Figure 1), aside from the seasonal uptick before the Chinese New Year due to fewer days in February, which could pull forward sales in January.

For the full year, CAAM expects flat auto sales y/y of 28mn units, with a softer 1H and gradual recovery in the back half, consistent with the cautiously optimistic tone from the major OEMs. **However, the outlook from suppliers and dealers, from our conversations, is less bullish, given the uncertainty in the policy path and strategic decisions from OEMs.**

In the near term, inventory level remained high, as the China Automobile Dealers Association's (CADA) Vehicle Inventory Alert index showed a y/y increase of 18.3% and marked the third consecutive month that it crossed above the warning line of 50.

....And Stimulus Could Fall Short

We believe the market, along with some of the US companies within our universe, is anticipating stimulus and subsidies from the Chinese authorities to reverse the downward trend in auto sales. A lack thereof could, in our view, disappoint investors and create more negative sentiment as China continues to post weaker auto sale data. The latest news flow from the National Development and Reform Commission (NDRC) suggests the potential for industry stimulus in 2019.

FIGURE 4

Auto-Specific Incentives since 2009

Tiemline	Policy
Mar-09	1) Car purchase tax cuts: 10% to 5% from Jan 2009 - Dec 2009 for below 1.6L vehicles 2) Rural car purchase incentives: 10% purchase price subsidies for below 1.3L vehicles; total magnitude 5bn CNY 3) Trade-in incentives: 3000 - 6000 CNY subsidies for new purchase
Sep-11	Subsidies for energy efficient vehicles purchase: 3000 CNY
Sep-13	Encouraged purchase of below 1.6L vehicle: 3000 CNY
Sep-15	Car purchase tax cuts: 10% to 5% from October 2015 to December 2016
Dec-16	Car purchase tax cuts: 7.5% for 2017

Source: NDRC, Barclays Research

As we mentioned above, we believe the policy measure will likely come after the March NPC meeting, which could be longer than market is expecting, and involve credit easing and more government spending, which may not necessarily flow through to higher consumer spending. We elaborate below on two car incentives that have been widely discussed.

Potential Stimulus Measures

Stimulus 1: Vehicle Purchase Tax Cuts

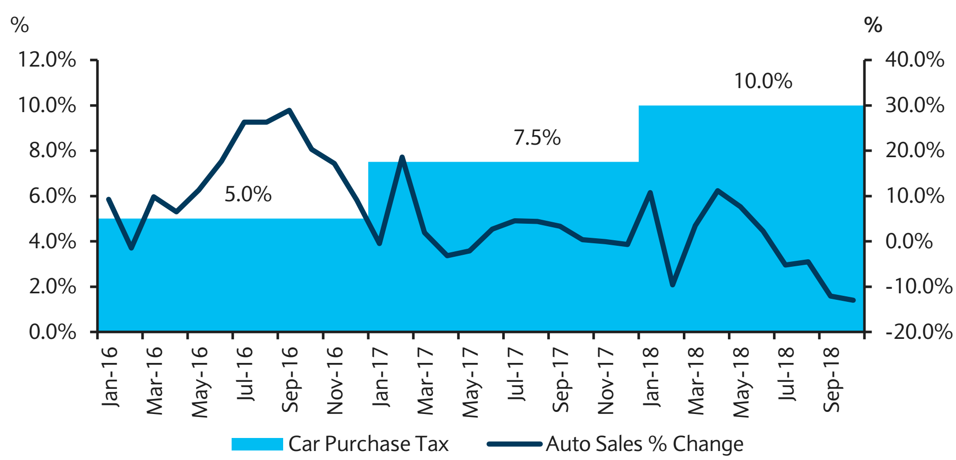
Latest Development: It had been reported that Chinese government could consider cutting car purchase tax to 5% from 10%, mirroring the incentives in 2009 and 2015. However, the latest news flow, as well as company feedback, suggests it is not likely to proceed with a similar stimulus.

Our Take: We do not believe car purchase tax cuts alone (historically focused on below-1.6L vehicles) would translate to an inflection point for auto sales in the near term. The significant pull-forward from previous stimulus (Figure 5), combined with the fact that average vehicle age is 4.4 years, means fewer consumers may have an incentive for new car purchases, especially as the risk of an economic slowdown looms large.

That said, the cuts would be viewed as a positive signal for an industry hungry for any relief, which means it could help shift sentiment from the negative extremes and be enough to prevent further declines, although we largely view the effect as temporary and only pushing the problem further down the road.

FIGURE 5

Car Purchase Tax Stimulus in Late 2015 Has Pulled Forward Demand



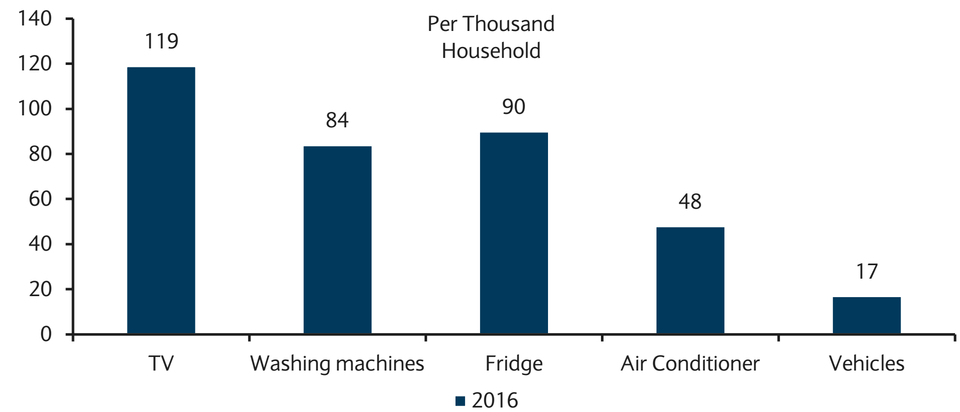
Source: Barclays Research

Stimulus 2: Rural Vehicle Purchase Incentives

Latest Development: In a press conference on Monday, the NDRC suggested there could be incentives for autos and home appliances to stimulate consumption. The talk was mostly focused on providing further support on consumption growth in rural areas.

FIGURE 6

Rural Penetration on Big Ticket Items (Per Household)



Source: NBS, Barclays Research

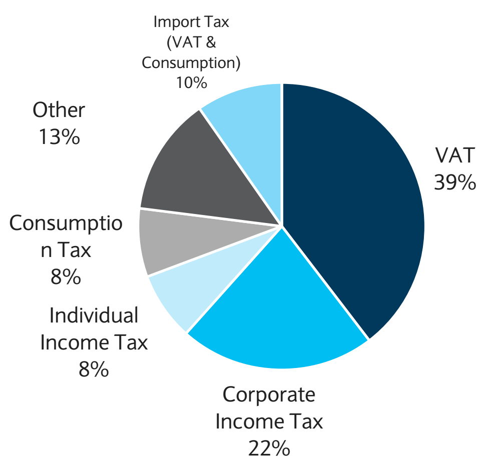
Our Take: The rural household population has decreased steadily in the past five years, from ~200mn to ~170mn, largely a result of urbanization and the younger demographic moving to bigger cities for work. The incentives could benefit the sales of home appliances to a greater degree, given the smaller ticket. As for autos, subsidies similar to 2009 (Figure 4) may provide a boost, but we do not see them providing firm support for auto sales.

Stimulus 3: Corporate and (or) VAT Tax Cuts

Broader and deeper corporate or VAT tax cuts could, in our view, spur consumption and boost business sentiment. However, such benefits would come at the expense of lower fiscal income when the government is managing the overall debt level (including the shadow banking system), dealing with a gradually aging population and facing external pressure from a potential slowdown in exports.

FIGURE 7

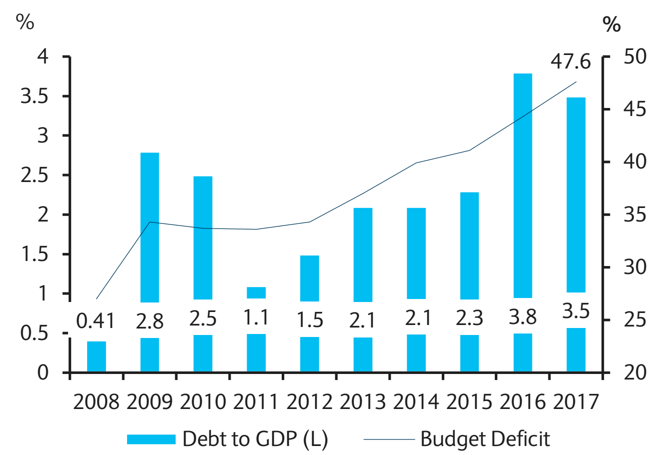
VAT and Corporate Tax Are Biggest Sources of Fiscal Income



Source: Wind, Barclays Research

FIGURE 8

Stimulus Will Come at a Cost



Source: IMF, Ministry of Finance of the PRC

China has accelerated tax reform as it seeks a structural shift to boost consumption. As part of the tax code change, the threshold for taxable income was increased, and tax rates in different income brackets were reduced by various degrees, with estimated savings of ~$126bn flowing to consumer balance sheets. While the order of magnitude is not insignificant, we have seen little flow-through to consumer spending. As a result, we believe an even larger tax cut is required to change consumer behaviour

As an offset, Barclays China Economist Jian Chang believes expansionary fiscal policy presents downside risk at the current juncture of the cycle (see *China Fiscal Policy: Higher expectations, constrained reality*).

Sales Pull-Forward Could Do Damage beyond 2019

While we believe there could be another leg of growth in annual auto sales (see the section "The Long View: Ownership Still Low"), it appears that the current slump could continue in the medium term beyond 2019 as a result of the sales pull-forward in the previous years (2009 and 2015).

China had initially used the stimulus (it cut the purchase tax by half in early 2009) to respond to the sharp auto sales decline amid a global recession. It prompted auto sales to increase dramatically in the following two years (Figure 6), but momentum slowed meaningfully in year 3 and 4 as incentives were gradually pulled back (5% in year 1, 7.5% in year 2 and back to 10% in year 3).

FIGURE 9

The Car Purchase Tax Worked in the Previous Decade, but Pulled Forward Sales

Incentive Time	Year 1 (Current Year)	Year 2	Year 3	Year 4
Jan-09	52.9%	33.2%	5.2%	7.1%
Oct-15	7.3%	14.9%	1.4%	*-3.0%*

Source: CAAM, Barclays Research

The industry seems to be worried about the medium-term implication as well, as CAAM acknowledged it could take up to three years for sales to migrate back to a normalized long-term trajectory, a statement that was echoed by other participants.

Premium Is Winning, Suppliers' Profitability in Question

Pockets of strength remain, despite the weaker industry backdrop. Within OEMs, premium car makers have largely outperformed, while larger OEMs in general have gained share from less competitive lower-tier manufacturers that had competed fiercely at the lower prices. For suppliers, the share picture is largely unchanged, but as OEMs are expecting a slowdown in sales, we see them under pressure with more aggressive price mark-downs from the OEMs.

BBA Are Strong, but Lower Tier (Domestic) OEMs Are Hurting

Premium brands headlined by BBA should continue to see volume and share strength. BMW and Mercedes are expected to introduce new sedan and SUV model in 2019, with strong brand equity and more affordable prices (CNY ~300k for Series 5, ~250k for Series 3) at the lower end; consumers tend to trade up for quality, from our checks on dealers.

The competition has stepped up further at lower prices, as the introduction of more sedans and SUVs at 150-200k Chinese yuan are seen across top domestic OEMs and foreign brands alike.

Historically, incentives have been concentrated on below-1.6L (small displacement) vehicle sales, which had increased penetration into lower-tier cities. As a result, indigenous local OEM emerged in the previous decade in quantities, but with a step-up in competition and higher penetration of vehicle ownership, lower-tier domestic OEMs are losing share to stronger JVs that feature more well-capitalized domestic companies (Figure 7).

Overlaid with the government push for supply-side reform, we see a structural reduction of manufacturing capacity (~40% utilization) in autos, coming primarily from less competitive domestic OEMs; as such, we expect share erosion to continue. Within our universe, DLPH (28% of sales) has highlighted a meaningful headwind associated with the share loss, whereas it had enjoyed strong growth in the past decade.

Supplier Outlook Could Be More Difficult than OEM

We heard a more bearish tone from suppliers than the OEMs, and we believe they could be met with demand for more aggressive price mark-downs from its OEM customers than the historical practice (3-4%). We expect the degree of price concession to vary by supplier scale, portfolio quality and the OEM's internal sales and profitability budget.

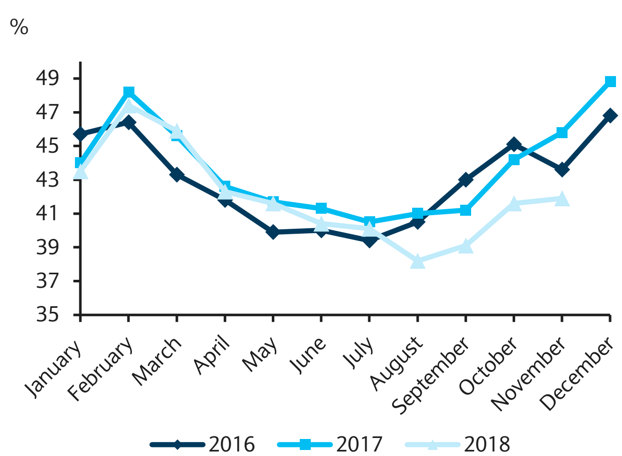
For US suppliers that have co-located with global OEMs in China (Figure 10), we view the pressure coming largely from lower sales expectation into 2019 and challenging OEM profitability outlooks. While OEMs are mostly cautiously optimistic, anchored by the belief in a 2H recovery, we believe manufacturers will be conservative in internal planning in 2019.

Aside from suppliers that have meaningful exposure to China (Figure 10), suppliers with limited exposure could have higher growth assumptions for the region, given the recent trajectory, and the lack of growth or a decline could be a meaningful negative surprise. For instance, GT (Underweight rated) highlighted the slowdown in its OE business, which was an ~$70mn EBIT hit in 2Q and continued weakness in 3Q.

We do not expect the same degree of share attrition among the supplier space, and it would be difficult to gain new customers in the current environment, in our view. The majority of Chinese domestic suppliers are sub-scale, despite having the largest auto market globally. However, because they are legacy SOEs (some still are) and implicitly backed by local governments, they are not necessarily driven by market forces. In addition, emerging domestic OEMs (BYD, Geely and Great Wall) are more vertically integrated, with a significant portion of the supply chain residing with captive units.

FIGURE 10

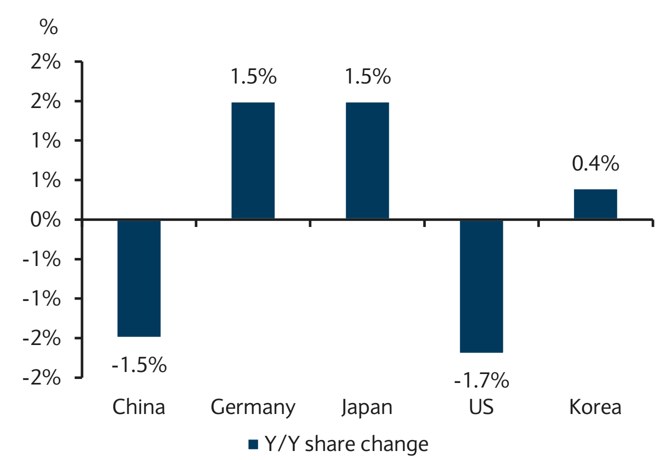
Domestic Brands Are Losing Share YTD



Source: Barclays Research, CAAM

FIGURE 11

Vehicle Sales Share in China by Brand Origins



Source: Barclays Research

FIGURE 12
Sales Exposure by Geographic Locations

	US	International	1	%	2	%	3	%	China
AXL	85%	15%	Mexico	22%	Europe	8%	China	5%	5%
ALSN	71%	29%	Canada	5%	Japan	4%	China	3%	3%
ADNT	31%	69%	China	37%	EMEA	26%	APAC	6%	37%
DAN	46%	54%	Europe	24%	Brazil	4%	Thailand	4%	4%
MTOR	53%	47%	Europe	21%	Mexico	7%	India	5%	4%
TEN	46%	54%	China	15%	Germany	9%	Poland	5%	15%
GT	43%	57%	Germany	12%	China	4%			4%
DLPH	28%	72%	China	28%	UK	15%			28%
TSLA	56%	44%	China	17%	Norway	7%			17%

Note: Based on 2017 sales. Source: Barclays Research

MACRO IMPLICATIONS FOR CONSUMERS

We believe China faces a dilemma among a long-term structural reform, deleveraging the financial system and managing downside risk in economic growth through further fiscal expansion and a liquidity injection. For 2019, Barclays' China Economist is expects growth of 6.0-6.5%, with mid-point of 6.2% and the risk tilted towards the downside, stemming from tariffs, the housing slowdown and Fed tightening.

Specific to autos, we highlight bearish consumer sentiment and the pullback in credit availability (deleveraging and a crackdown on the shadow banking system) as two macro factors that have played important roles in the recent slump, in addition to industry-specific drivers that we highlighted above.

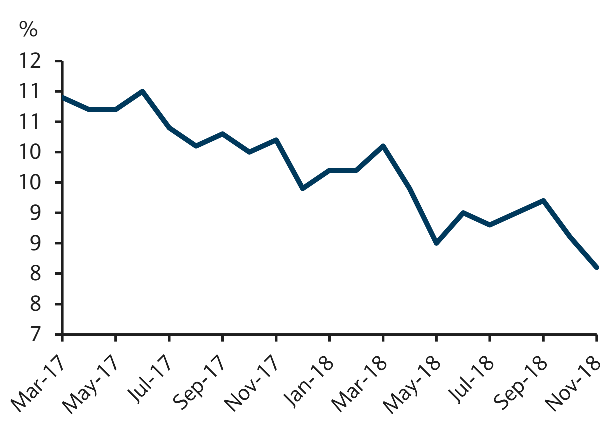
Less Money in the Pocket, Consumer Sentiment Negative

Economic growth has shown clear signs of sluggishness as of late. Overlaid with the rhetoric from the trade war and higher debt on consumer balance sheets, consumer sentiment deteriorated gradually through 2018 and spending was pulled back, reflected in November by the slowest retail sales growth since May 2003.

Contributing to the lower disposable income are disappointing investment returns, larger mortgage payments and higher medical and education spending. Specifically, China A share ended 2018 at the low point since early 2015, the worst performing market globally in the three-year span (Figure 12). Uncertainty about property prices has made consumers wary to commit to other large ticket spending, as many are tied to a long-term mortgage. Others who are entering the age for marriage are under pressure to save for property purchases, which remains a necessity for household formation; as a result, the majority of the workforce has a propensity to save. Elsewhere, medical and education expenses have risen broadly.

FIGURE 13

Retail Sales Growth at a 15-Year Low



Source: NBS, Barclays Research

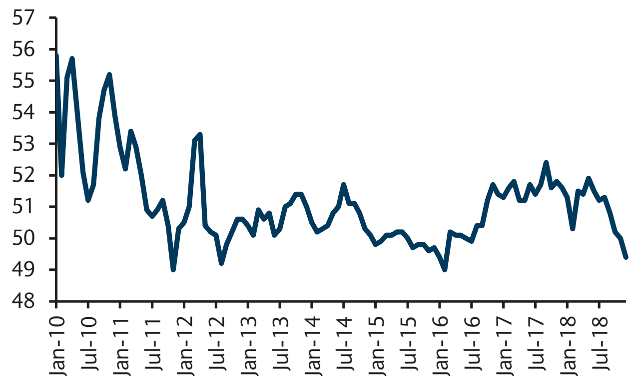
FIGURE 14

…Shanghai A Share Dropped to a 3-Year Low

Source: Bloomberg, Barclays Research

FIGURE 15

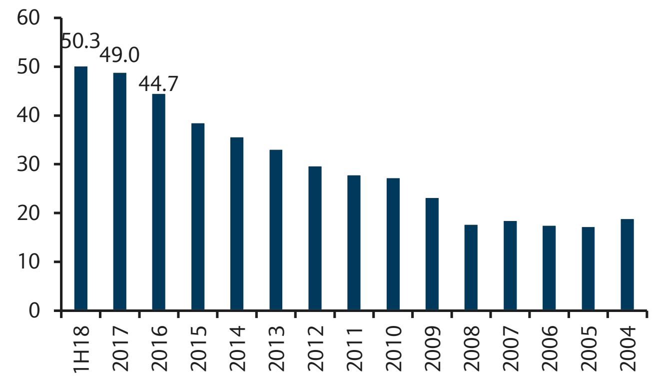
PMI Has Dropped below 50 for the First Time since 2015



Source: Barclays Research

FIGURE 16

Household Debt/GDP Is Growing Rapidly



Source: Caixin, Barclays Research

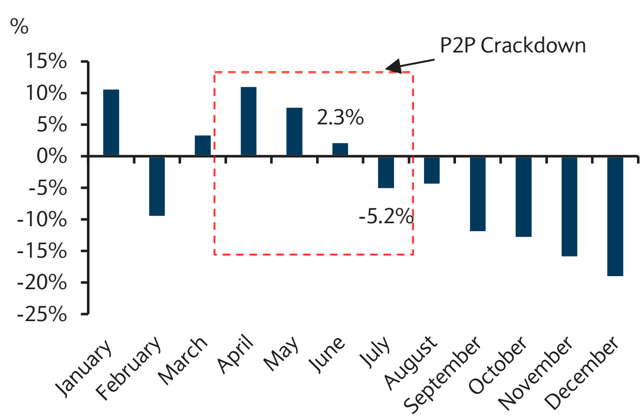
Credit Availability an Issue for Consumers

As China pushes structural deleveraging heading into the tail end of the credit cycle, it has fixated on the bloated shadow banking system, which has become a primary source of liquidity for businesses that are of lower credit quality (or without implicit government backing) and SMEs. Among the fastest-growing category is P2P platforms (+159% CAGR from 2013 to 2017 according to PBOC), which were met with more stringent regulation earlier this year as a result of public backlash, as some platforms disappeared overnight.

As for autos, ~29% of the P2P platforms are devoted primarily to auto financing, and we believe incremental buyers for autos resorted to the alternative financing avenues in 2016 and 2017. The crackdown on these platforms through 1H18 (Figure 15) has had a meaningful effect on incremental consumer spending of big ticket items, as we see a lock-step change in the shrinkage of credit availability and auto sales declines.

FIGURE 17

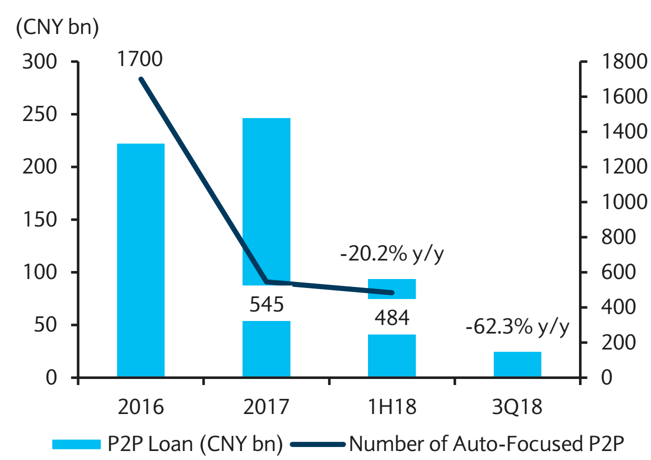
Auto Sales Decline Was Concurrent with the Crackdown on P2P Platforms



Source: CAAM, Barclays Research

FIGURE 18

Number of P2P Platforms and Auto Loan Amounts Decreasing



Source: 01caijin November 2018 P2P report, Barclays Research

Further, as the government shuts down non-compliant P2P platforms and investors pull funding, overall auto financing (including QD, LexinFintech, Yirendai, etc.) have been pulled back (Figure 16), and others have materially tightened underwriting standards. By the end of May 2018, the number of P2P platforms had decreased to 2902, compared with over 8606 at the end of 2017 according to Automotive News.

THE LONG VIEW (FOR AUTOS): OWNERSHIP STILL LOW

Vehicle Ownership Still Trails Developed Country

- China has been the primary source of growth for global auto OEMs, but a 2019 sales decline was not the base case for most OEMs and their suppliers until recently, and further weakness is not priced in, in our view, as most may still be benchmarked against IHS projections (+2 -3% in 2019).
- However, in the longer term, we are more optimistic, given low vehicle ownership per capita, the penetration potential into lower-tier cities and the push into new energy vehicles. The downside risks, in our view, are the growth of the underdeveloped used car market; the rapidly evolving ride-sharing landscape; and the government's determination to fight pollution, which means lower car sales, in our view.
- We are wary of supplier participation in the EV landscape within our universe. Chinese OEMs (BYD, Geely and "auto new forces") have developed their own supply chain to push EV sales. While it could be outsourced, we view suppliers that have not shown proven capabilities (most of our universe) as disadvantaged.

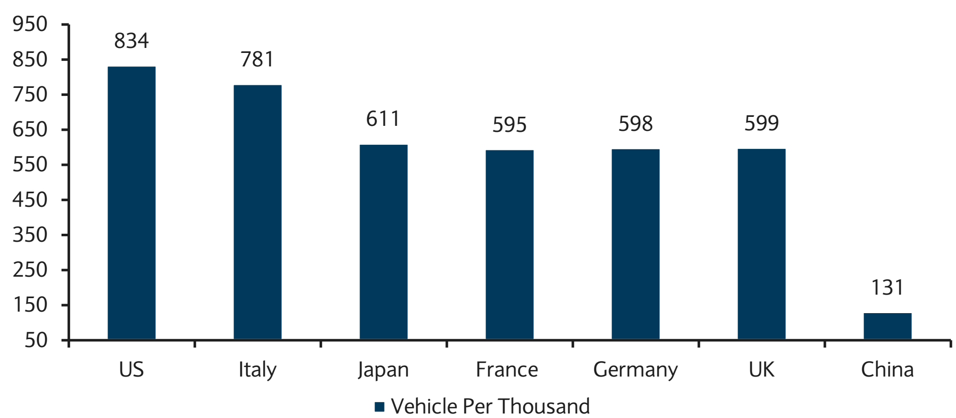
Longer-Term Growth Picture Still Intact, but with Some Caveats

We look at vehicle ownership per thousand and compare China with other developed economies (Figure 19). Given the large population base (1.4bn), even a mere increase from 150 to 200 per thousand (people) would translate to 70mn in incremental auto sales.

In the longer term, for argument's sake, assuming an equilibrium of 300 per thousand, we calculate 400mn vehicles in circulation. **With a normalized vehicle age of 11 years (4.4 years right now), that would imply auto sales of 36mn per annum on a more stabilized basis, a ~50% step-up from the ~24mn in 2018.** As an offset, the increase could take longer to materialize, given the short-term sales pull-forward (mentioned above) and a slowing economy that is heading into the end of the growth cycle.

FIGURE 19

Vehicles Ownership per Thousand Population (2016)

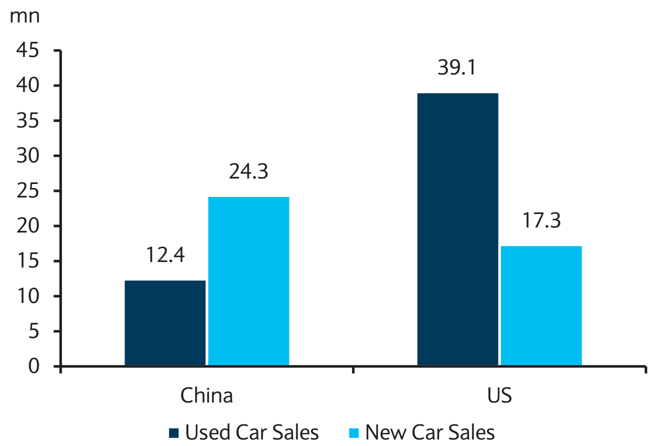


Source: OCIA, Barclays Research

Potential Negative Drivers

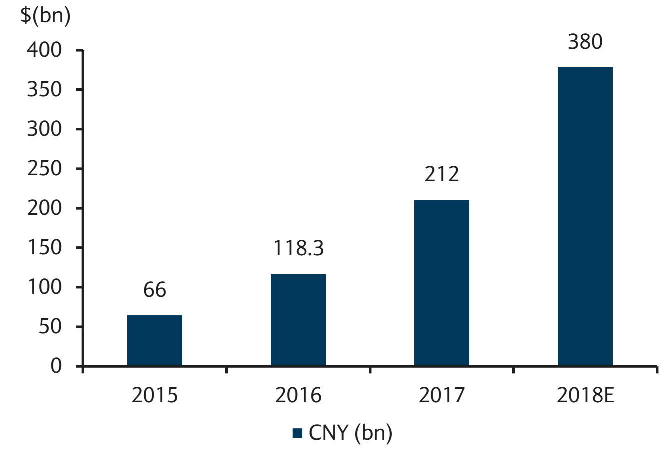
On the flip side, we highlight a burgeoning used car market, ride-sharing and an advanced public transportation system as primary threat to the structural growth for auto sales.

FIGURE 20
US and China New Car versus Used Car (2017)



Source: CAAM, Barclays Research

FIGURE 21
Ride-Sharing Market Growth (Vehicles)



Source: CBN, Barclays Research

We see secular growth in used car sales, which topped 10mn for the first time in 2016 and are still experiencing strong growth off a lower base, despite the softer new vehicle market. To size the upside potential, ~12.4mn used vehicles compares with new car sales at ~24.7mn per annum, while annual US used car sales far exceed new car sales at ~31.9mn units, versus ~17.3mn over the past three years.

The factors that had historically constrained used car sales growth were the lack of transparency in vehicle assessment, low efficiency and a lack of fragmented supply. We attended an auto tech conference and met with multiple start-ups that are stepping into different parts of the used car transaction to improve the experience. While still largely uncharted territory, the effort of process standardization, in our view, will create the infrastructure for further used car market growth.

Further, the continued urbanization trend among the younger generation, advanced public transportation systems and the emergence of car-sharing and autonomous technology are likely to slow further penetration, in our view, especially with China at the forefront of next generation vehicles and transportation systems. The country already boasts the most advanced railroad network worldwide (217 mph high speed railway) and is the leader in research in electric and autonomous vehicles.

Ride-sharing could pose longer-term headwinds to vehicle ownership, but we believe the addition of a dedicated fleet will outweigh the dilution and represent a net addition in the near to medium term. Aside from Didi Chuanxin (valued at $56bn in the latest financing round), domestic OEMs including BAIC and SAIC are aggressively entering the fast growing market (Figure 19) by subsidizing customer acquisition costs.

Domestic Pure EV up, but Suppliers Not Participating

Despite the uncertain outlook for auto sales, we see continued growth for EV supported by tax incentives (declining), positive OEM profitability and increasing consumer uptake. However, the near-term growth appears to be dominated by domestic OEMs.

For the suppliers under our coverage, most domestic OEMs have developed their own supply chain (captive) or partnered with domestic suppliers. Global suppliers, which have historically sided with global OEM customers through JVs, have largely been left out of this growth. As an offset, VW, Daimler and Ford have all announced pure EV models in the next three to five years.

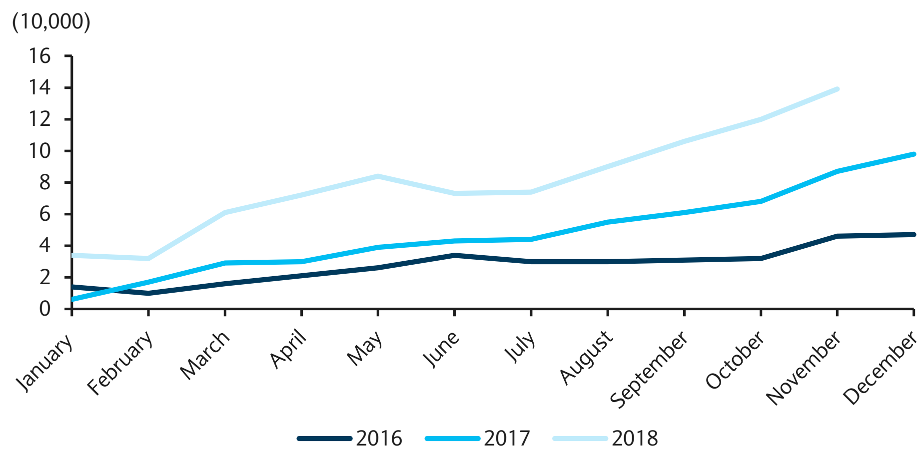
Electric Vehicles Will Lead the Growth

Despite the overall auto sales slump in 2018, clean energy vehicle sales were up 89% in 2018, according to CPAC. The industry is projecting another year of rapid growth (30%+) in 2019, with the goal of 2mn annual sales in 2020. We expect faster adoption of EV in China than the rest of the world, as OEMs have already reached scale to be profitable selling electric vehicles, consumers have higher awareness and interest and we expect supportive government policies to continue in the near to medium term.

OEMs that compete in the US and European markets are still having a tough time making the economic case for mass EV production (see *Fighting Against Fate; Expanding Coverage; Maintain Market Weight*). In contrast, Chinese OEMs headlined by BYD and Great Wall are already making higher profits in EV than they are in ICE cars, and while partially driven by tax credits and consumer incentives, leading domestic OEMs has been able to scale up production capacity with sustained demand stimulus.

FIGURE 22

Electric Vehicle Sales (2016 – November 2018)



Source: Barclays Research

Regarding demand, we highlight the various restrictions on vehicle sales and use in daily transportation among Tier-1 cities (Shanghai, Beijing, Guangzhou, etc), with the exception of clean energy vehicles. Such exclusion has stimulated demand in the bigger cities, and we expect this trend to continue.

The rapid introduction of electric vehicles was also a result of tighter emission standards enacted by Beijing, forcing OEMs to get ahead of the curve in developing pure EVs. The consequence of not being compliant with the new standard would mean delays and shutdowns in production, similar to the WLTP drag in Europe.

As an offset, China 6.0 was on schedule to be implemented in selected tier one cities at the beginning of 2019, but was met with backlash from OEMs that are vouching for longer lead times, given the rather large step-down in emission standards (Figure 21). We do not expect compliance to be a meaningful downside risk, as we believe the government can read and adjust before OEMs are more comfortable with the new standards.

FIGURE 23

Emission Standard Will Tighten Meaningfully with China 6b (Gasoline)

g/km	China 5	China 6a	China 6b
CO	1000	700	500
THC	100	50	50
N0x	60	60	35
PM	4.5	4.5	3

Source: Barclays Research

Global Suppliers Are Not Involved in EVs in China

Global powertrain suppliers (at least in our universe) had a significant head start in ICE vehicles with cumulative know-how and R&D for the previous century, but the competitive environment in the electric vehicle supply chain appears to be less transparent, given relatively low penetration to date. We have not seen meaningful sales backlogs from the majority of suppliers. In China, domestic OEMs are the primary driver of EV production growth and have developed capabilities in-house or have sourced from domestic suppliers.

We believe an important driver is that the scale of the business has not been attractive to suppliers, but if EVs become more mainstream in the medium to longer term, we view proven capabilities with the first movers (ie, TSLA in US, BYD, Great Wall in China, etc.) as crucial for claiming its value proposition in the new regime. Traditional suppliers will have customer familiarity to their advantage, but as incumbents move into EVs, it is unclear whether OEMs will choose relationships over capabilities, as they will need close cooperation on a new product.

APPENDIX

Data Sources

- CAAM versus CPCA: We use CAAM data and slides as the official data. The CPCA publishes data ahead of CAAM, but they are from a survey of EMs and often have errors on the margin.
- NBS versus Caixin: We largely use National Bureau of Statistics) for macro data (PMI, CPI, retail sales and etc), but Caixin offers an alternative that has been viewed as a more accurate gauge.

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