国泰君安证券 GUOTAI JUNAN SECURITIES

Sector Report: Automobiles & Components Sector
行业报告：汽车及零部件行业

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NEVs in Shanghai Auto Show Spark the Future of China Auto

上海车展的新能源汽车引领中国汽车的未来

- **Strong new energy vehicle (NEV) development in 2019 onwards.** At this year's Shanghai Auto Show (the "Auto Show") we witnessed numerous new NEVs to be offered in 2019, ranging from the Beijing Benz EQC and FAW Audi Q2L e-tron from the premium segment to the ORA R1 and BYD e2 in the lower-end segment. There will be regulatory push from the government, urging OEMs to produce NEVs. Emerging brands gained a lot of attention during the Auto Show, showcasing their first commercial models. These brands face two main problems: 1) production difficulties and 2) profitability and cash flow.

- **The NDRC is mulling more policies to stimulate the auto market.** The leaked proposal includes to relax control over licence plates. Currently there are seven cities in China applying control over licence to curb congestion and air pollution. We are cautious on the feasibility and effectiveness of such plans, as relaxing licence quota by 50% and 100% would only increase 1.2% and 2.2% of auto sales, but would worsen the other problems with little improvement in social wellbeing.

- **Maintain "Neutral" rating for the sector.** We are expecting full-year auto sales growth to be in a range of 0-3%, as supported by government stimulus and the stabilizing economy. We believe that stock performance has overreacted to the unconfirmed proposal as have overestimated the impact towards the auto market. Our top pick remains Geely Auto (00175 HK) with a "Buy" rating. Stock price exceeded our TP, we suggest to take profit for short-term investors.

- **2019 年开始强劲的新能源汽车发展。**在今年的上海车展上，我们见证了 2019 年推出的众多新款新能源汽车，从高端的北京奔驰 EQC 和一汽奥迪 Q2L e-tron 到低端的 ORA R1 和 BYD e2。政府的监管推动将驱使汽车制造商生产新能源汽车。造车新势力在车展期间引起了广泛关注，展示了他们的第一款量产车型。这些品牌将面临两个主要问题：1）生产困难和 2）盈利能力和现金流。

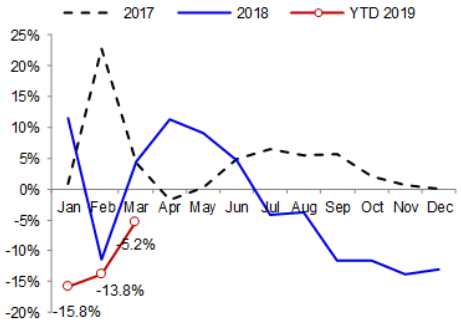
- **国家发改委正在考虑更多刺激汽车市场的政策。**泄露的提案包括放宽对牌照的控制。目前，中国有七个城市实施限牌，以遏制交通拥堵和空气污染。我们对此放松措施的可行性和有效性持谨慎态度，因为放松 50%和 100%的牌照配额只会增加 1.2%和 2.2%的汽车销售，但会使其他问题恶化，而社会福祉几乎没有显著改善。

- **维持行业评级为“中性”。**在政府刺激措施和稳定经济的支持下，我们预计全年汽车销售增长将在 0-3%的范围内。我们认为股票表现对未经证实的提案反应过度，并高估了对汽车市场的影响。我们的首选股仍为吉利汽车（00175 HK），评级为“买入”。其股价已超过我们的目标价，我们建议短线投资者先行获利。

Rating: **Neutral** Maintained

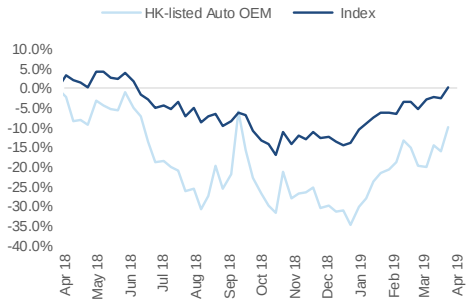
评级：**中性**(维持)

China Auto Sales
中国汽车销售



Source: CAAM, Guotai Junan International.

HK-listed OEM 52-week Performance
香港上市汽车制造商 52 周表现



Source: Bloomberg.

Company Name 公司名称	Code 编号	Price 股价	Rating 投资评级	18PER 市盈率(x)	19PER 市盈率(x)	20PER 市盈率(x)	19ROE 净资产收益	19PBR 市净率(x)	19Yield 股息率(%)
Geely Auto	00175 HK	18.12	Buy	11.4	9.7	8.7	28.0	2.4	2.9
Dongfeng Motor Group	00489 HK	8.54	Reduce	5.0	5.1	4.8	9.6	0.4	3.2
Brilliance China	01114 HK	9.59	Accumulate	7.3	5.3	4.4	22.8	1.1	2.8
Nexteer	01316 HK	12.78	Buy	10.8	10.6	9.8	21.1	2.1	1.9
BAIC Motor	01958 HK	6.27	Neutral	10.0	8.0	6.4	10.4	0.8	4.2
Guangzhou Automobile Group	02238 HK	10.02	Accumulate	8.2	7.7	7.4	14.1	1.0	4.6
Great Wall Motor	02333 HK	6.97	Reduce	10.7	10.2	10.1	9.4	0.9	4.5
Xiezhong International	03663 HK	1.77	Accumulate	n.a.	12.1	8.3	12.1	1.4	2.4
Sinotruk	03808 HK	18.72	Buy	10.4	9.9	9.1	16.5	1.6	4.9
Weighted Average.市值加权平均				**9.4**	**8.4**	**7.7**	**17.9**	**1.4**	**3.6**

Source: the Companies, Guotai Junan International, Bloomberg.

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A NEW ERA FOR NEVs

2019 will be an important year of NEV development. On the regulatory front, the push from the government through the NEV credit scheme and corporate average fuel credit (CAFC) will guide the market to produce more NEVs. As a result, NEVs took central stage in the recent Shanghai Auto Show. Currently, the NEV market is mainly filled with domestic brands, with over 90% of the NEV market in China from self-owned brands in which BYD and BJEV have the most market share. However, we noticed that a lot of foreign brands will launch their first NEVs in 2019 in order to cope with regulatory requirements and also to make a presence in this mega trend in China. We should expect more NEVs in the future in the low to high-end segments, as automakers have already started or will start to produce NEVs in their latest modular platforms specially designed for electric cars (see Table-1). In this report, we will summarize and discuss some of the key highlights of the Shanghai Auto Show (the "Auto Show") by segment, from new start-ups to premium brands and domestic brands.

Table-1: Summary of Key OEM Modular Platforms for NEVs

Brands	Platform	Remarks
Volkswagen	MEB	Based on MQB architecture, MEB are able to build NEV with driving range of 250km to 500km. Volkswagen could launch new NEV brands such as BUDD-e, I.D concept, I.D. Buzz etc, by 2020.
BMW	FSAR	Brand new i5 will be built under FSAR, and expected to be key platform to fulfil its 2025 strategy of developing 25 NEVs.
Mercedes Benz	EVA	The pure electric brand, EQ will be based on EVA. This platform is based on MRA platform, with ability of equipping 377kg battery module.
Geely	PMA	Co-developed by Geely and Volvo, PMA platform is expected to develop approximately 10 NEV models between Geely and Lynk and Co brands. This would be the major steps towards "Geely Blue initiatives" and Volvo's Electrification Strategy.
BYD	e-platform	BYD's latest platform for NEV, models built under this platform includes e1, e2 and S2.
GAC (Trumpchi)	Gac Electric Platform	The first pure electric platform was in 2017, crafting the GE3 SUV. Meanwhile, the second generation will be in service in 2019, which will be able to build five-seat toseven-seat SUVs. Trumpchi has plans to roll out two brand new NEVs per year.
Great Wall Motor	ME	The NEV platform will be deployed for its ORA brand, focusing on electric vehicles. Currently, model iQ, R1 and R2 has been publicly launched.

Source: the Companies, Guotai Junan International.

EMERGING BRANDS

The market is set for growth, joined by new players. At this year's Shanghai Auto Show, emerging brands were the focal point for both media and consumers, in our view. These emerging brands are very attractive due to their futuristic designs, high-tech features and loud marketing events. See Table-2 fora list of some emerging brands in China, though some did not attend the auto show and some were already unveiled in previous auto shows. Most of these emerging brands showcased their first commercialized models, in which most of them are already in the pre-order stage. Not surprisingly, due to the larger market size, most brands chose to build compact SUVs as their first models, such as the Xpeng G3, WM EX5, Novat ME7 and Hozon U. Some chose to produce bigger SUVs such as the Nio ES8, Aiway U5 and Li One. Others decided to go after niche segments, such as the Qiantu K50for the high-end sports car segment and the low-end coupe Leapmotor S01. However, one key similarity is that these new brands have gone for much different routes than traditional OEMs, which normally involve using online applications or mobile apps to engage users.

Judging from the number of models on offer and sales numbers, we view the Nio as the strongest emerging brand at the moment. Currently, the Nio comes in two models, the ES8 and ES6. Both of these products are SUVs. The Nio also unveiled its conceptual sedan, the ET, as the next available product. We would expect the product to be launched at the end of 2019, most likely in their annual Nio day in December. Established in the same year as the Nio, the Xpeng targets the mass market with its G3 pricing at RMB150,000 to RMB300,000. At the same time, a second Xpeng product, the P7 sedan, was unveiled. However, delivery is expected in 2Q20.

Table-2: List of Emerging NEV Manufacturers

Brand	Founders	Founded Date	Models	Delivery Status	Production permit
NIO (蔚来)	Li Bin, William (李斌)	2014	EP9, ES8, ES6, ET	Delivered 3,989 units of ES8 in 1Q19, cumulative delivery of 15,337 units	No; JAC (江淮汽车) as OEM
XPENG (小鹏)	He Xiaopeng (何小鹏)	2014	G3, P7	Delivered 2,455 units of G3 in 1Q19.	No; Haima (海马汽车) as OEM
WM (威马)	Shen Hui, Freeman (沈晖) Du Ligang, Napoleon (杜立刚)	2015	EX5, EX5 Pro, EX6	Delivered 3,844 units in 2018,and 4,085 units in 1Q19.	Yes
FMC or Byton (拜腾)	Carsten Breitfeld Daniel Kirchert	2016	M-Byte, K-Byte	Delivery to start by 4Q19	No
Faraday Future (法拉第未来)	Jia Yueting (贾跃亭)	2014	FF91	Delivery to start by 2019	No
AIWAYS (爱驰)	Fu Qiang (付强) Gu Feng (谷峰)	2017	U5, RG	Delivery to start by 4Q19	No
Hybrid Kinetic (正道汽车)	Yang Rong (仰融)	2010	H600, K550, K750	Delivery to start by 2019	No
Singulato (奇点)	Shen Haiyin (沈海寅)	2014	iS6, iM8	Delivery to start by the end of 2018	No; BJEV (北汽新能源) as OEM
Lucid Motors (formerly known as Atieva)	Sam Weng (温世铭) Bernard Tse (谢家鹏)	2007	Lucid Air	Delivery to start by 2020	No
Chehejia, or CHJ Auto (理想)	Li Xiang (李想)	2015	LI One	Delivery to start by 3Q19	No
DearCC (电咖)	Zhang, Hailiang (张海亮)	2015	EV10, EV10 Pro 300	Delivered 1,566 units in 2018	No; Soueast (东南汽车) as OEM
Leap Motor (零跑汽车)	Zhu Jiangming (朱江明)	2015	S01, T01, T03, C11	Delivery to start by 1Q19	No

Source: the Companies, Guotai Junan International.

Figure-1: Nio ET Concept

Source: Guotai Junan International.

Figure-2: Xpeng P3

Source: Guotai Junan International.

Figure-3: AIWAYS U5

Source: Gasgoo.

Figure-4: NOVAT ME7

Source: Gasgoo.

Figure-5: Li One

Source: Bitauto.

Figure-6: Qiantu K50

Source: Autohome.

Despite that emerging brands are looking to take a slice of the cake, there are two major problems for these start-ups:

1. **Production difficulties.** These come in two dimensions. Firstly, the NDRC has basically stopped approving production permits of NEVs since 2017 due to the oversupply in the market. As a result, start-ups can only rely on exiting OEMs to help the assembly line. Second, there seems to be significant issues during the ramp-up process as evident with Tesla, which has a history of missing production targets, particularly with the model 3. Other emerging brands also showed constant problems, with delayed delivery not being uncommon.

2. **Short-term profitability and cash flow.** Most start-ups are able to attract a considerable amount of capital, but it is also noticeable that most start-ups are in cash burning business due to significant capital needs for R&D and selling and distribution expense in the early stages of the business. The timing of when to achieve profit is still a huge uncertainty for most start-ups. Without the backing of car sales with ICE technology like from traditional OEMs, it has put some strain on cash flow. Problems have also worsened due to the longer receivables days for government subsidies.

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PREMIUM BRAND NEVs

The market landscape is about to change with JVs and foreign brands expected to introduce NEVs, filling up the blank space in the mid-to-high and high-end segments. The premium segment of NEVs is still very young with very limited product choice with only one to two NEVs on offer. However, premium brands all have the intention to succeed in China with bold NEV plans for the next 7-8 years. We will look at NEV products in major brands and highlight some models from the Shanghai Auto Show.

Mercedes Benz

Through its JV with BAIC, Mercedes Benz will localize its EVs under the EQ brand in 2019. The first EQ model will be the EQC, a battery-powered crossover vehicle. We are expecting more EVs to come, and not only under the EQ brand, since automakers have aggressive plans of offering electric versions of all car models by 2022. Mercedes Benz has gained a head start over BMW and Audi in NEV competition in China. BMW and Audi should come slightly later, in which the BMW iX3 will only be produced in 2020. Mercedes Benz's EQC, featuring the modular design, has a range up to 500km, which is more than the 400kmrange of BMW's iX3 and Audi e-tron.

More new products to be introduced in China. On the other hand, though it's not an NEV, we think the new conceptual GLB that was first shown in the Shanghai Auto Show is an other highlight for Mercedes Benz. The GLB shares a number of attributes with the GLA, including the manufacturing platform, and also the engine (M260 four-cylinder petrol engine) which is shared with some A-class models (A250 and A35). Therefore, we believe it would be highly likely to be localized. The new model is aiming to fill up the space between the GLC and GLA. We believe the car is highly differentiated with the GLC and GLA due to the more off-road design, and the GLB can seat up to 7 passengers. Similarly, Mercedes Benz unveiled the A35 L sedan. Not only is this the first 35-series Mercedes to be offered in China, it also marks the first AMG model to be produced locally.

Figure-7: A35 L Sedan

Source: Autocar.

Figure-8: GLB

Source: Guotai Junan International

BMW

No new NEV models to be introduced in 2019. The next model to be localized will be the ix3, which will hit China only in 2020. The ix3 was announced last year when the transaction of disposing the 25% stake to BMW AG was confirmed. Although only a concept version was announced, the iX3 should be based on an existing model and will look similar to its more conventional sibling, the X3. The ix3 will directly compete with the Audi e-tron. Looking further to 2021, BMW has plans of produce the iNext, which would have achieve ADAS L4 capability and over 700km driving range. In the meantime, Brilliance BMW offers a PHEV variant of the X1 and 5-Series. BMW showcased the latest X1 PHEV at the Auto Show, with improved range and battery efficiency.

Figure-9: BMW i3

Source: BMW.

Figure-10: BMW iNext

Source: BMW.

Audi

Audi is aiming to sell one-third of EV or PHEV in its total sales by 2025. The plan is to introduce 12 models in key markets by 2025, and the first to be unveiled is the e-tron, which was first shown in 2018. The e-tron is expected to be available in China as an import for 2019, and expected to be localized in China one year later by FAW Audi. The e-tron is built using the MLP platform, with selling price of RMB700,000 to RMB830,000. However, as being the earliest brand to enter China and having the highest localization rate, Audi will launch the Audi Q2L e-tron which is designed to be exclusively available in China in 2019. The Q2L e-tron, which is equipped with CATL batteries, is very similar to the gasoline version, and is crafted under the MQB platform (similar to e-golf).

Figure-11: Audi e-tron

Source: Guotai Junan International.

Figure-12: Audi e-tron Q2L

Source: Guotai Junan International.

Tesla

Tesla did not show its latest Model Y. The latest Model Y of Tesla was missed in the Shanghai Auto Show. Instead, Tesla only showcased its Model X, Model S and Model 3 this year. For the Model 3, Tesla showcased the Performance and non-Performance Model 3 to the event. On the other hand, the Model Y was unveiled in Mar. 2019, and marketed as a mid-sized SUV. It sits between the Model X and Model 3. It's 10% larger than Model 3, as is the selling price. Despite the Model Y being a larger SUV that can seat up to 7 passengers, the Model Y shares 75% of its components with the Model 3. As a result, when the Shanghai factory is ready, both Model 3 and Model Y will be produced locally, sharing the 250,000 unit capacity of Shanghai Gigafactory 3. The Model Y is a key model of Tesla's strategy for the Chinese market, as the vehicle caters to the popular SUV segment in China.

Figure-13: Tesla Model Y

Source: Tesla.

Figure-14: Tesla Model 3

Source: Guotai Junan International.

Polestar

Polestar to launch the Polestar 2 to compete with Tesla. The Polestar is a wholly electrified brand co-owned by Zhejiang Geely and Volvo. The all-electric model will roll off the assembly line in Luqiao, the same factory used to produce the XC40 and Lynk 01 as it is also built under the CMA platform. Delivery is expected to be 2020, the same year as the Tesla Model 3. The Polestar 2 will start at RMB298,000. However, the first version will have a price of RMB460,000. At the same time, Polestar also announced that China's first Polestar Space retail experience store, which will officially open in 3Q19. It is estimated that by 2020, Polestar will open 20 Polestar Spaces in 11 cities in China, accounting for about one-third of global planning. The Polestar 2 is the second model of the brand. The first model, the Polestar, is also a sedan, but targets a much higher end of the segment, selling at about RMB1.5 million in China. The Polestar 1 is currently out as a handmade pre-series but scheduled to come fully to the market by mid-2019. Geely is currently building a dedicated facility in Chengdu.

Figure-15: Polestar 2

Source: Polestar.

Figure-16: Polestar 1

Source: Polestar.

NEVs-SELF-OWNED BRANDS

Geely Auto

Geometry will be Geely Auto's (00175 HK) full electric brand. Geometry is the brand name under Geely's independent NEV units, will first be based on modular architecture PMA. The first model was already launched in Singapore in early April 2019. Geometry has been open to take overseas orders but will mainly focus on the Chinese market. As a first model using the PMA platform, more is expected to come. Geely is planning to launch more than 10 pure electric models in multiple segments by 2025. Revealed in the launch date, Geely Auto had already received more than 26,000 orders globally for its first model, the Geometry A. The longer-range version of the model has the ability to travel up to 500 kilometers on a single charge. Pre-subsidy prices of the new car range will be between RMB210,000 and RMB250,000.

The Lynk 02 and 03 PHEV in 2019. At the Auto Show, Lynk & Co. showed off the PHEV variant of the 02 and 03, giving NEV options for all models of the brand. Both the Lynk 02 and 03 PHEV version have very similar interior and exterior design to the ICE version. Further, both PHEV models will be powered by a hybrid powertrain that is comprised of a 1.5T engine and an electric motor, mated to hybrid 7-speed wet clutch transmission. Fuel consumption for the two models may reach only 1.7L per 100km. Meanwhile, Geely also displayed the 03Performance version, named as the 03 Cyan in the Auto Show, a cooperation project with Volvo racing team.

Figure-17: Geometry A

Source: Guotai Junan International.

Figure-18: Lynk 03 Cyan

Source: Guotai Juan International.

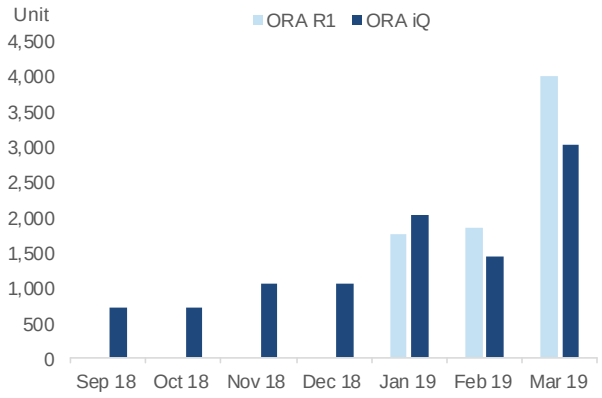
Great Wall Motor - ORA

GWM launched the ORA R1 Goddess edition at the Auto Show. The Goddess edition would seem to be specifically designed for the female market, with two rather feminine colours unveiled during the show. We believe the mini-sized sedan (A00 segment) is very suitable as a city car and for female drivers. Moreover, it is equipped with AEB (Automatic Emergency Brake) functions at speeds under 40km/h. The R1 has a 350km electric driving range on a full charge, with selling price of RMB78,900 after subsidies. Similar to the iQ, the R1 is also manufactured under the ORA ME platform, the first NEV platform of GWM. The separation of the ORA brand gives GWM an opportunity to market the brand completely differently from the current Haval and WEY brand. Currently, the ORA brand has had a flying start in 2019. Combined sales from the R1 and iQ reached 14,096 units in 1Q19, already on par with Tesla's full-year sales in China in 2018. Both models also achieved the top 10 most saleable NEVs in Mar. 2019.

Figure-19: ORA

Source: Guotai Junan International.

Figure-20: Sales of ORA Since Launch



Source: the Company, Guotai Juan International.

BYD

BYD surprised with introduction of a sports car. At the Auto Show, BYD unveiled a rather aggressive-looking car sports car named the E-SEED GT, able to reach 0-100km in2.9s. On its commercialized model lineup, BYD introduced the Song Pro, a mid-to-large sized SUV, with ICE/PHEV/EV options. With its modular platform, the e-platform, BYD brought the e2 and S2 model. As an A0 crossover, the e2 would be one class above the e1. Meanwhile the S2 is the first SUV under the e-platform with a driving range of 305km.

Figure-21: BYDE-SEED GT

Source: Gasgoo.

Figure-22: BYD e2

Source: Guotai Juan International.

GAC TRUMPCHI

Getting more from the GAC electric platform. At the Shanghai Auto Show, GAC New Energy released its pure electric SUV model, the Aion LX. The new car is positioned as a medium-sized SUV, the first pure-electric SUV model under the Aion system. The car has a driving range of more than 600km under the NEDC standard, which is comparable to the Tesla Model X P100D. The Aion LX will be ready to commence production in Sep. 2019, and can be pre-orders through an app. Along with the Aion S, both Aion models will be crafted under the latest GAC electric platform. The Aion S is also ready to be launched in late Apr. 2019, with current orders standing at around 23,000 units, according to a media interview withTrumpchi's Sales Director. Also released with Aion LX is the Adigo autopilot system. The Adigo autonomous driving system has already been applied into two products. First, the Aion LX, which was upgraded to the ADAS level 3, and Aion S of ADAS level 2.

Figure-23: Trumpchi Aion S

Source: InsideEV.

Figure-24: Trumpchi Aion LX

Source: Gasgoo.

NEV NEW POLICIES

NEW SUBSIDY

Decreasing financial subsidy trend but structure optimizing. Subsidies on NEVs have experienced a general decreasing trend over the years, but has hastened. Despite the subsidy structure having favoured NEVs with long driving range in 2018, the same has not happened so far in 2019. Driving range has face significant reduction, with no subsidies granted for range below 250km. The subsidy amount would further be adjusted based on the technical aspect of the battery density and the energy consumption of the NEV, in which it has also been tightened in the updated 2019 structure (see table 4&5 for adjusting factors).

Table-3: NEV Subsidy Trend

Type	Range	2013	2014	2015	2016	2017	2018	2019
EV	**R≥400**	60,000	57,000	54,000	55,000	44,000	50,000	25,000
	300≤R < 400	60,000	57,000	54,000	55,000	44,000	45,000	18,000
	250≤R < 300	60,000	57,000	54,000	55,000	44,000	34,000	18,000
	200≤R < 250	50,000	47,500	45,000	45,000	36,000	24,000	-
	150≤R < 200	50,000	47,500	45,000	45,000	36,000	15,000	-
	80≤R < 150	35,000	33,250	31,500	25,000	20,000	-	-
PHEV	**PHEV**	35,000	33,250	31,588	30,000	24,000	22,000	10,000
YoY								
EV	***R≥400***	*n.a.*	*-5%*	*-5%*	*2%*	*-20%*	*14%*	*-50%*
	300≤R <400	*n.a.*	*-5%*	*-5%*	*2%*	*-20%*	*2%*	*-60%*
	250≤R <300	*n.a.*	*-5%*	*-5%*	*2%*	*-20%*	*-23%*	*-47%*
	200≤R <250	*n.a.*	*-5%*	*-5%*	*0%*	*-20%*	*-33%*	*-100%*
	150≤R <200	*n.a.*	*-5%*	*-5%*	*0%*	*-20%*	*-58%*	*-100%*
	80≤R <150	*n.a.*	*-5%*	*-5%*	*-21%*	*-20%*	*-100%*	*n.a.*
PHEV	***PHEV***	*n.a.*	*-5%*	*-5%*	*-5%*	*-20%*	*-8%*	*-55%*

Source: Ministry of Finance, Guotai Junan International.

Table-4: Battery Density Factor

EV subsidy plan (2019)		EV subsidy plan (2018)	
Battery pack density (Wh/kg)	Factor	Battery pack density (Wh/kg)	Factor
105 ~ 125	0	105 ~ 120	0.6
125 ~ 140	0.8	120 ~ 140	1
140 ~ 160	0.9	140 ~ 160	1.1
≥ 160	1	≥ 160	1.2

Source: Ministry of Finance, Guotai Junan International.

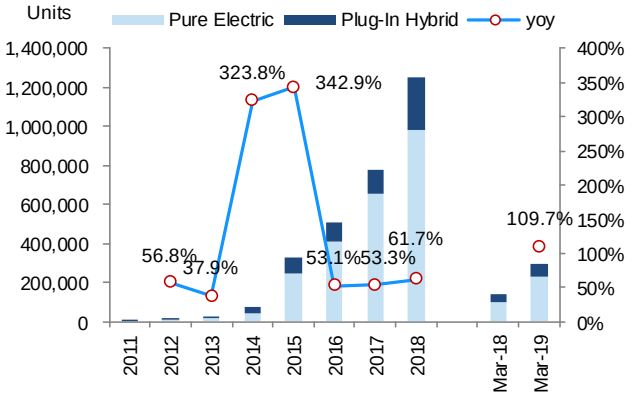
Table-5: Battery Energy Consumption Factor

100 km electricity consumption better than requirement	Factor (2019)	Factor (2018)
0-5%	0	0.5
5-10%	0	1
10-20%	0.8	1
20-25%	1	1
25-35%	1	1.1
>35%	1.1	1.1

Source: Ministry of Finance, Guotai Junan International.

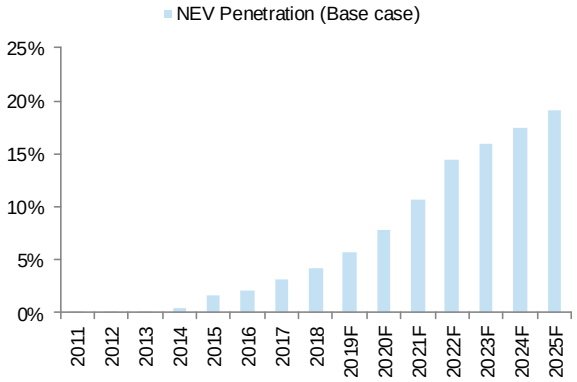
Despite subsidy cuts, we expect no change in sales momentum. Since the NEV industry is one key focus of the government, it is strategically meaningful for OEMs to keep producing NEVs. Regardless that it is still a loss-making product to most OEM, we believe that the key focus in the short-term would be product quality and market share. We expect by achieving both would create market awareness and brand name that will be useful in the future when profitability matters. In the meantime, we see NEV sales growing strongly in 1Q19, up by 109.7% yoy. We see the momentum to continue in 2Q19 as many OEMs are still offering subsidies based on 2018 structure before the transition period end (see Table-6). Moreover, the lower subsidy amount after the transition period would also induce advance purchase.

Figure-25: NEV Sales in China



Source: CAAM, Guotai Junan International.

Figure-26: NEV Penetration in China



Source: CAAM, Guotai Junan International.

Table-6: OEM Response After Subsidy Change

NEVModel	Original Price(RMB)	After Subsidies' Price (RMB)	Subsidies offered (RMB)	Notes
NIO ES6	408,000	383,000	25,000	2019 Subsidy
NIO ES8	456,000	444,480	11,520	2019 Subsidy
BAIC EC3	121,900	104,800	17,100	2019 Subsidy
JAC IEV6E	72,500	59,500	13,000	2019 Subsidy
BYD Qin Pro EV500	268,900	169,900	99,000	2018 Subsidy(before 2019/06/25)
BYD Tang DM	272,900	239,900	33,000	2018 Subsidy(before 2019/06/25)
BYD Song DM	209,900	176,900	33,000	2018 Subsidy(before 2019/06/25)
BYD Qin Pro DM	182,900	149,900	33,000	2018 Subsidy(before 2019/06/25)
Roewe ERX5	271,800	198,800	73,000	2018 Subsidy(before 2019/06/25)
Geely GE11	210,000	150,000	60,000	2018 Subsidy
LI One	398,000	328,000	70,000	2018 Subsidy
WM EX5 300	174,800	129,800	45,000	2018 Subsidy
Xpeng G3	227,800	155,800	72,000	2018 Subsidy

Source: Autohome, the Companies, Guotai Junan International.

NEV credit scheme go live in 2019. After postponing one year, the NEV credit scheme will start in 2019, requiring 10% NEV credit in 2019 and 12% in 2020. To recap, the NEV credit is the number of points that OEMs need to achieve based on their vehicle production in that year. For example, if the OEM produced 1 million units, 100,000 NEV credits are required. The credit of each NEV will depend on the vehicle type (EV or PHEV or fuel cell) and its electric driving range (see Table 7), with maximum of 5 credits. Any shortfall would need to settle within 60 days post assessment, in which the entity can 1) obtain from related entity; or 2) buy from NEV credit trading platform, which already started operation since Jul. 2018; or 3) carry forward to next assessment period, providing that the OEM is confident of making enough credit to compensate the shortfall in prior period.

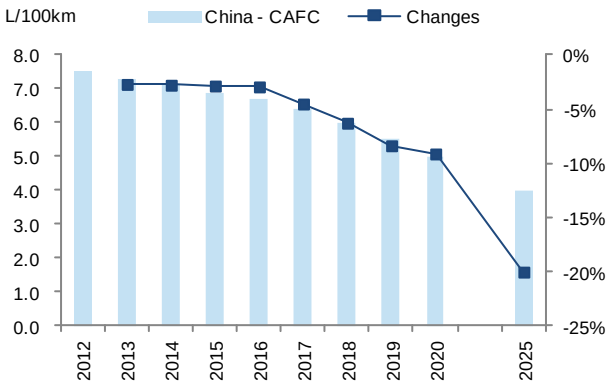
Table-7: NEV Credit by Vehicle

Vehicle Type	Credit Calculation
EV	Max 5, *f* (0.012 x R +0.8)
PHEV	2
Fuel Cell	0.16 x P

Source: MIIT, Guotai Junan International.
Note: R as electric driving range, unit as km; P as system power, unit as kW.

The NEV credit scheme will work in tandem with the Corporate Average Fuel Consumption (CAFC) scheme to encourage more NEV production. The CAFC scheme has a similar mechanism with the NEV credit scheme, where the OEM CAFC will be compared with fuel consumption target as set out by MIIT. Any shortfall would also need to be settled within 60 days of the assessment report. One settlement rule is that positive NEV credit can be used to offset negative CAFC credit but not the other way round. It is worth noting that both schemes strongly encourage the production of pure electric vehicle, as it will significantly help the entity to fulfill the underlying requirement for both schemes. Pure electric vehicles will be given extra weighting in its zero emission CAFC calculation and higher credit in the NEV credit scheme.

Figure-27: CAFC Requirements in China



Source: MIIT, Guotai Junan International.

NEV RUMOURED TO BE GETTING NEW STIMULUS AGAIN

The government is considering concrete plans to stimulate the auto market, specifically more for NEVs. An internal document within National Development and Reform Commission (NDRC) was leaked, which contained number of proposals to further stimulants to the auto market. The suggested proposals are consistent to the "Consumption Promotional Plan"《进一步优化供给推动消费平稳增长促进形成强大国内市场的实施方案（2019 年）》as suggested in Jan. 2019. In particular, the internal document suggests a number of plans that would effectively stimulate auto sales. Below are key proposals that will have direct impact to new car sales:

1. To relax controls over issuance of new car licence in restricted cities, in which the licence quota is to increase 50% and 100% in 2019 and 2020, respectively, on a 2018 basis. Further, the increased quotas will be assigned to NEVs only. Families without a vehicle do not need to queue for car licence.
2. To provide subsidies for replacing cars with age below 10 years.
3. To enjoy 50% purchase tax cut and exemption of vehicle and vessel tax for rural citizens for replacing a new car of engine displacement below 1.6L.
4. To expand the relaxation of driving restrictions of pickup trucks at prefecture-level cities or below.

IS IT POSSIBLE TO RELAX CONTROL ON LICENCE PLATES?

Background information: There are seven cities in China that apply control over car plates. There are normally three ways of doing it: 1) lottery; 2) bidding or 3) a mix of the first two. However, in contrast to the extremely low probability in lotteries or the increasingly high bidding prices for ICE car plates (see Table 8), it is much easier and cheaper to obtain plates for NEVs, which offers great attractiveness for potential car purchasers to choose NEVs over traditional ICE vehicles. In most major cities with car plate restrictions (except in Beijing), NEVs can get free plates without lottery or bidding, while NEV buyers in Beijing can participate a separate lottery for NEVs with a much higher probability of obtaining car plates.

Table-8: Car Plate Restrictions in Major Cities in China

City	Average Probability of Obtaining a Car Plate	Lottery / Bidding	Plates for NEV
Beijing	0.12%	Lottery only	Separated lottery with a much higher probability of obtaining
Guangzhou	1.46%	Lottery and bidding	Free plate without lottery or bidding
Hangzhou	0.92%	Lottery and bidding	Free plate without lottery or bidding
Shanghai	4.49%	Bidding only	Free plate without bidding
Shenzhen	0.81%	Lottery and bidding	Free plate without lottery or bidding
Guiyang	0.69%	Lottery only on special section	Free plate without lottery
Tianjin	0.78%	Lottery and bidding	Free plate without lottery or bidding

Source: Frost & Sullivan, Guotai Junan International.

Relaxing 50% and 100% restriction on licences would only boost 310,000 and 620,000 units of new car per year, representing 1.2% and 2.2% yoy increase in 2019 and 2020, respectively, based on 2018 vehicle sales. The increment is useful but may not be a significant improvement to the overall wellbeing of the society. As seen in Table-8, the probability of obtaining a car plate is very low for restricted cities, and doubling that would not necessary be seen as an improvement to the resident of respective cities. Noted that our estimation did not account the current c.400,000 applications in Beijing for NEVs.

Table-9: Effect on Relaxing Restrictions on Licence Quota

City	Quota per year	50% increase in quota	100% increase in quota
Beijing	120,000	60,000	120,000
Guangzhou	120,000	60,000	120,000
Hangzhou	80,000	40,000	80,000
Shanghai	100,000	50,000	100,000
Shenzhen	100,000	50,000	100,000
Tianjin	100,000	50,000	100,000
Guiyang	42,000	21,000	42,000
Total	620,000	310,000	620,000

Source: D1EV.com, Guotai Junan International.

It is possible to relax controls over car licence but this may create negative externalities. Car plate restrictions are implemented in major cities in China as a solution against two major problems: air pollution and traffic congestion. As NEVs have no or less air pollution, we see that polices are normally supportive towards NEVs, which will usually be granted with privileges or waived from these restrictions. Despite air pollution having irrelevant problems for NEVs, having more cars on the road will bring other concerns such as causing more congestion and safety issues when accidents occur. Research from Gaode Map every year shows that Beijing-Guangzhou and Shanghai are consistently on the top 10 of congested cities. Congested road would cause longer commuting hours and lead to economic loss. Therefore, we are in view that government officials may be reluctant to fully relax controls on licence restrictions.

Table-10: 2018 Top 10 Congestion Index

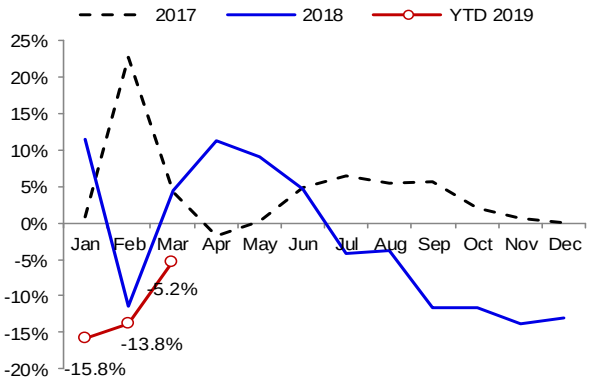
City	Peak hours congestion index	Peak hours average speed (km/h)	Human Average Congestion Hours (25 to 60 years old)	Human Average Commuting Hours (25 to 60 years old)
Beijing	2.032	23.35	6,260	12,325
Guangzhou	1.911	23.96	5,396	11,321
Harbin	1.903	23.5	4,372	9,216
Chongqing	1.89	25.84	5,032	10,686
Hohhot	1.85	25.04	3,542	7,711
Guiyang	1.849	25.54	4,455	9,707
Jinan	1.848	25.84	4,754	10,360
Shanghai	1.847	23.27	5,443	11,869
Changchun	1.834	24.65	4,049	8,903
Hefei	1.801	24.57	4,193	9,429

Source: Gaode Map.

INVESTMENT SUGGESTIONS

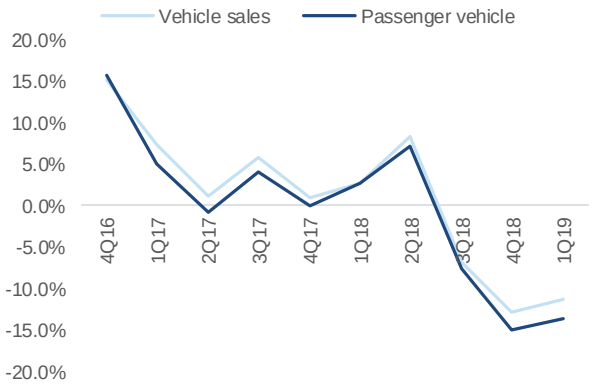
Despite a low start in 1Q19, we should be looking at sales to finish at positive figures. Sales improved significantly in Mar. 2019 with sales decline narrowing to 5.2% yoy. We expect sales to get back to our expected long-term trend of low single-digit growth in the next few months. We argue that the slump in sales in 2018 nay delay purchase of real auto demand, and should release in current year on stabilizing economy. Coupled with an array of government stimulus policies which we noticed nationwide promotion, we expect full-year sales to be in a range of 0% to 3%.

Figure-28: Vehicle Sales by Month



Source: CAAM, Guotai Junan International.

Figure-29: Vehicle Sales by Quarter

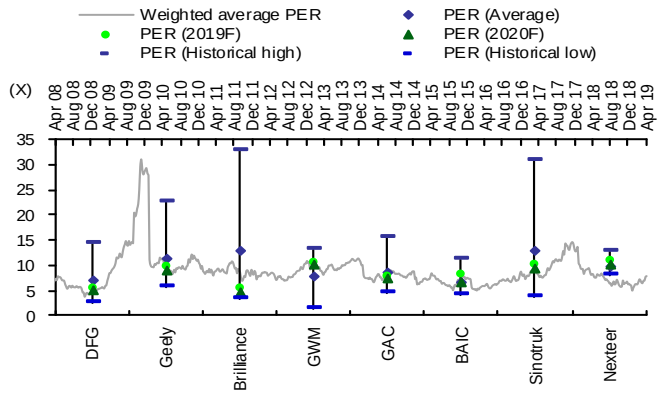


Source: CAAM, Guotai Junan International.

We maintain our "Neutral" rating for the sector. In 2019, policy again will drive share performance. YTD performance has outperformed the market on low valuation and positive sentiment towards stimulus policies. However, we are cautious on 1) weakening fundamentals, as we see margin pressure for most OEMs due to the slowdown in auto sales, price competition and the ramp up of NEVs; and 2) uncertainty towards the feasibility and the effectiveness of the unconfirmed proposals of the NDRC. Auto stocks have reacted positively, particularly BYD (01211 HK, Not rated), Geely Auto (00175 HK, "Buy") and Great Wall Motor (02333, "Reduce") due to optimism over strong auto sales rebound from the NDRC proposal. However, any shortfall from the expected proposal would see correction of stock price.

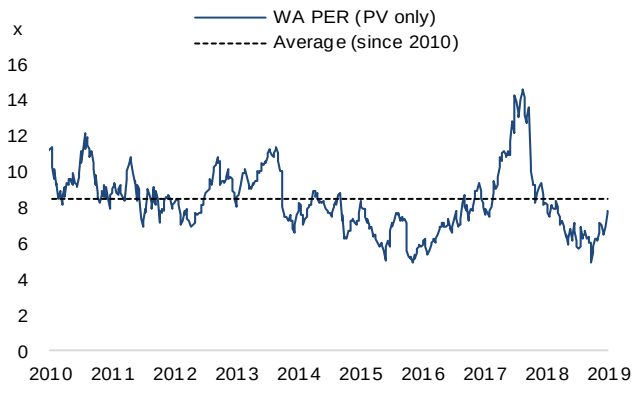
Top pick remains Geely Auto (00175 HK) with investment rating of "Buy". We favour Geely Auto as we are optimistic about its ability to deliver sustainable growth. Model cycle is expected to be very strong with CMA, BMA and PMA modular platforms having started to speed up new model introduction. These modular platforms are able to shorten model development time and share cost among models. CMA has not only been deployed in Geely Auto, but also with other brands within its parent company, such as the Volvo XC40 and Polestar 2, which are also based on the CMA platform. Further, Geely Auto is also fundamentally the strongest in terms of margin and ROE. The current price has exceeded our TP, however we think that there are no fundamental changes since our last Company report issued in Mar. 2019. The sudden burst in valuation is due to more stimulus expected from unconfirmed documents. We therefore, suggest to take profit for short-term investors.

Figure-30: PER by Company



Source: Bloomberg, Guotai Junan International.

Figure-31: HK-listed Auto OEM Forward PER



Source: Bloomberg, Guotai Junan International.

Company Rating Definition

The Benchmark: Hong Kong Hang Seng Index

Time Horizon: 6 to 18 months

Rating		Definition
Buy	买入	Relative Performance >15%; or the fundamental outlook of the company or sector is favorable.
Accumulate	收集	Relative Performance is 5% to 15%; or the fundamental outlook of the company or sector is favorable.
Neutral	中性	Relative Performance is -5% to 5%; or the fundamental outlook of the company or sector is neutral.
Reduce	减持	Relative Performance is -5% to -15%; or the fundamental outlook of the company or sector is unfavorable.
Sell	卖出	Relative Performance <-15%; or the fundamental outlook of the company or sector is unfavorable.

Sector Rating Definition

The Benchmark: Hong Kong Hang Seng Index

Time Horizon: 6 to 18 months

Rating		Definition
Outperform	跑赢大市	Relative Performance >5%; or the fundamental outlook of the sector is favorable.
Neutral	中性	Relative Performance is -5% to 5%; or the fundamental outlook of the sector is neutral.
Underperform	跑输大市	Relative Performance <-5%; or the fundamental outlook of the sector is unfavorable.

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