

# China Auto Sector

Refer to important disclosures at the end of this report

DBS Group Research . Equity

23 Feb 2023

## Capitalising on tailwinds

- **Easing commodity prices, improving supply chain and a brighter economic outlook should offset some of the impact from normalising sales growth and rising competition**
- **Automakers' high-end EV strategy to mitigate vehicle margin erosion from price competition**
- **Anticipate government to remain committed to support the NEV industry; estimate NEV sales CAGR of 24% from 2022-25**
- **Our preferred picks: [BYD \(1211 HK\)](#), [Li Auto \(2015 HK\)](#) for automakers and [Mintch \(425 HK\)](#) for auto parts sector**

**Rocky start to 2023, but tailwinds could provide an uplift.** While we had anticipated slowing market sales growth on base effect, China NEV sales slipped c.5% y-o-y in Jan-23 compared to strong monthly deliveries recorded in 2022. We expect a brighter economic outlook to support our PV-GDP growth ratio estimate of 0.8x, slightly below the pre-Covid 10-year average of 0.9x. Nevertheless, auto OEMs (especially local mass-market players) have adopted an aggressive pricing strategy to win sales. Easing commodity prices and improving supply of auto parts should mitigate some price wars' impact on product margins. DBS commodity team expects prices of certain key auto and battery metals to decline by 10-15% in 2023. Besides, we should see the supply of auto chips improving through 2023 as well. Lastly, stability in the property sector should lend support to the overall consumer market.

**Automakers moving up the value chain.** Based on the new product pipeline, OEMs such as Li Auto, NIO, Zeekr are launching higher ASP models (>Rmb300k), which should command better product margins. We anticipate more Chinese OEMs are moving away from the mass-market segment into the high-end space which has traditionally been dominated by the foreign auto brands. In fact, foreign auto brands' share of the NEV market has been declining from 9% in 2020 to 5.6% in 2022. This explains the recent moves by the foreign auto brands to accelerate their EV model line-up as a defensive strategy.

**Selective picks.** We prefer auto names that demonstrate 1) high EV focus; 2) optimising model pipeline to fend off pricing pressure; 3) expanding scale effect; and 4) a disciplined strategy on vehicle pricing vs volume. On this basis, our top picks are BYD (1211 HK) and Li Auto (2015 HK). The improving supply chain opens up investment opportunities into auto parts players like Mintch (425 HK) and Nexteer (1316 HK), which are trading at 8-10x FY23F PE.

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### Recommendation & valuation

Company Name		Price Local\$	Target Price Local\$	Recom	Mkt Cap US\$m	PE 23F x
<b>Auto Parts</b>						
<a href="#">Mintch Group (425 HK)</a>	HKD	20.95	30.00	BUY	3,076	10.4
<a href="#">Nexteer (1316 HK)</a>	HKD	5.33	8.20	BUY	1,705	7.8
<b>Auto Dealers</b>						
<a href="#">China Yongda Auto (3669 HK)</a>	HKD	6.51	9.20	BUY	1,651	3.7
<a href="#">Zhongsheng (881 HK)</a>	HKD	41.45	60.00	BUY	12,850	7.5
<b>Auto Makers</b>						
<a href="#">BAIC Motor 'H' (1958 HK)</a>	HKD	2.31	2.20	HOLD	2,388	3.8
<a href="#">BYD 'H' (1211 HK)</a>	HKD	224.80	395.00	BUY	106,811	26.0
<a href="#">Dongfeng Motor (489 HK)</a>	HKD	4.28	5.20	HOLD	4,742	2.7
<a href="#">Geely Auto (175 HK)</a>	HKD	11.38	18.40	BUY	14,763	14.0
<a href="#">Great Wall Motor Co.'H' (2333 HK)</a>	HKD	12.06	18.00	BUY	36,076	8.4
<a href="#">Guangzhou Auto 'H' (2238 HK)</a>	HKD	5.41	9.00	BUY	15,351	4.2
<b>NEV</b>						
<a href="#">NIO Inc (9866 HK)</a>	HKD	77.90	130.00	BUY	17,862	n.a.
<a href="#">NIO Inc (NIO US)</a>	USD	10.03	16.00	BUY	18,041	n.a.
<a href="#">XPENG (9868 HK)</a>	HKD	36.20	48.00	BUY	6,353	n.a.
<a href="#">XPENG (XPEV US)</a>	USD	9.22	12.50	BUY	6,347	n.a.
<a href="#">Li Auto (2015 HK)</a>	HKD	93.40	115.00	BUY	20,583	143.6
<a href="#">Li Auto (LI US)</a>	USD	24.30	29.00	BUY	19,416	146.6

Source: Thomson Reuters, DBS Bank (Hong Kong) Limited ("DBS HK")

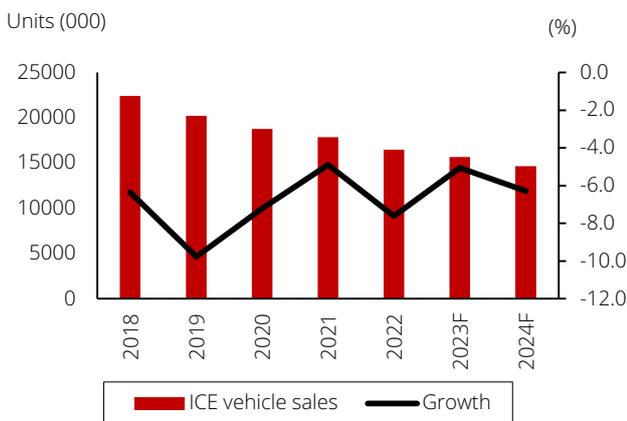
Closing price as of 22 Feb 2023

**A rocky start; but expect to be temporary**

**2023 expected to post slower sales growth.** Two main factors leading to slower volume sales growth expectations: 1) expiry of the favourable policy on internal combustion engine passenger vehicles (ICE PV) as the government continues to embark on the electrification drive; and 2) front loading of NEV sales ahead of the expiry of the NEV subsidy scheme in Dec 2022. Going into Feb-Mar 2023, we anticipate PV sales to pick up post the CNY period.

Hence, we forecast ICE vehicle sales to decline by c.6% per annum from 2022-2024 as China embarks on its vehicle electrification strategy.

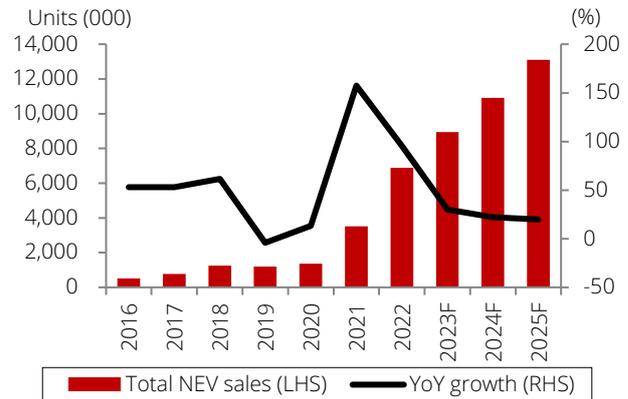
**ICE vehicle sales projections**



Source: CEIC; DBS HK

While the NEV sector remains on an expansion trajectory, the pace is expected to slow given the record level achieved in 2022, as units shipped soared >90% to almost 7m. We estimate 2023 sales growth of 30% to about 9m units and hitting some 13m units by 2025, translating to CAGR of 24% from 2022. In our opinion, the growth in China's NEV sales of 24% p.a. is decent compared to c.50% from 2019-2022, especially since the NEV subsidy scheme had expired in 2022. Besides, China's reopening should support a brighter economic outlook and hence support the consumer market.

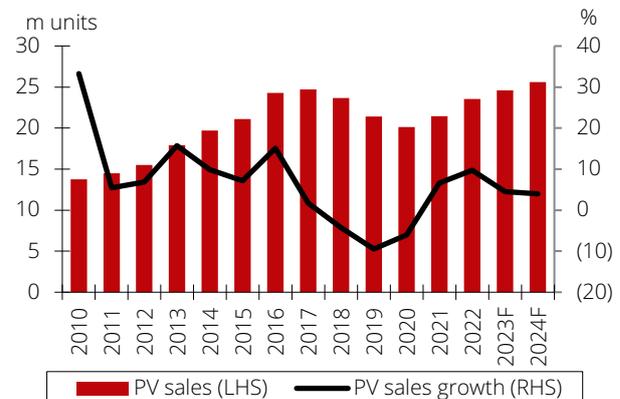
**NEV sales growth expected to moderate**



Source: CEIC; DBS HK

All in, we estimate the overall PV market to post 4-4.5% sales growth in FY23-24.

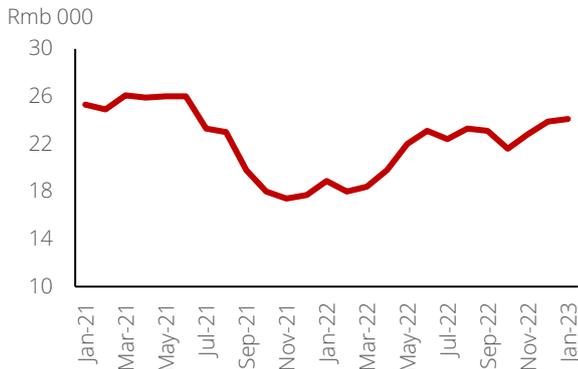
**China's total PV sales growth projections**



Source: CEIC; DBS HK

**Product prices under some pressure.** 2022 has been a year of upward price adjustments by the automakers, largely due to raw material cost escalation. But we believe the slower sales outlook this year is the key factor that has triggered the price war and the chain reaction from the automakers across the various auto brands to follow Tesla's move. Since late 2022, the amount of incentives per car given by the auto OEMs has been rising.

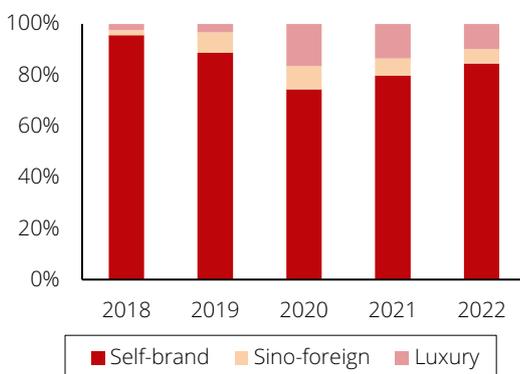
**Overall incentive package from auto OEMs**



Source: CPCA

The domestic NEV market is largely dominated by the Chinese NEV players, while the foreign names took a smaller share over the past few years, as shown in the chart below. Starting 2023, the foreign players are launching an offensive strategy with many EV models in the pipeline, thus market competition is expected to intensify. In the luxury segment, BMW, Mercedes Benz and Audi are launching 11, 6 and 5 new EV models into the Chinese market this year. Other Sino-foreign JV brands are also accelerating their electrification strategy with plans to rollout NEV models this year.

**Share of NEV sales by brands**



Source: CPCA

Among the EV start-ups, there are over 10 new models that will be launched, including three from NIO's NT2 series, five from Xpeng, and Li L7 from Li Auto. Other self-brand players such as BYD, Geely, Great Wall Motor, Guangzhou Auto, etc are rolling out over 20 new models to protect their market

shares as well. Hence, 2023 is expected to see a record number of EV new launches and price competition is expected to deepen under this backdrop, which could be a drag on vehicle margins.

**Mitigating factors to offset the headwinds**

However, we see certain tailwinds that could potentially offset some of the negative impact on the automakers.

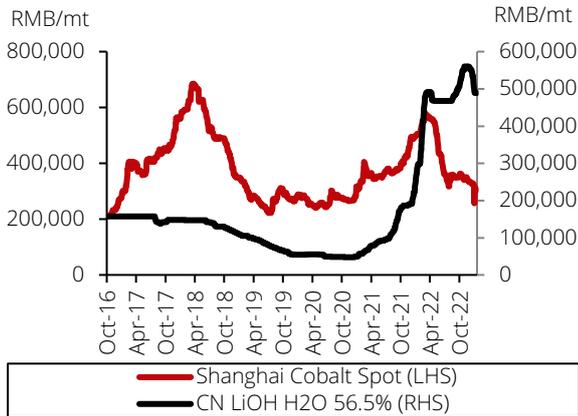
**Easing commodity inflation** in recent months following interest rate hikes and slowing global demand. The price trends of major auto-related metals such as aluminium, steel, cobalt, and lithium have fallen by 20-40% from their peaks, largely triggered by anticipated weaker global demand following the recent interest rate hikes. Our commodity team forecast that prices of these metals and raw materials (except for lithium) could decline by 10-15% y-o-y in 2023 and 2-6% in 2024.

**Steel and aluminium price correction**



Source: Bloomberg Finance L.P.

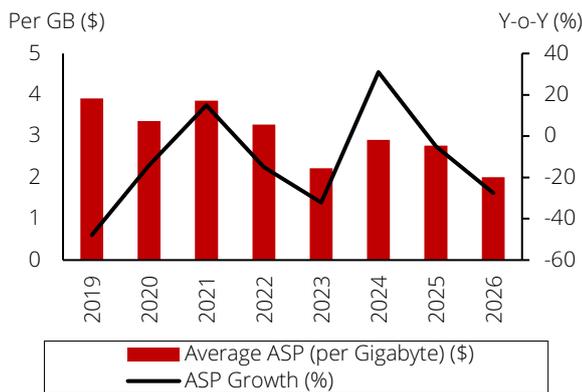
**Cobalt and lithium price trends**



Source: Bloomberg Finance L.P.

The improving supply chain is another positive driver to lower auto production cost. Supply of auto chip is improving compared to during Covid-19, although we could still see some bumps along the way. More importantly, chip prices are declining, which should help to ease the input cost.

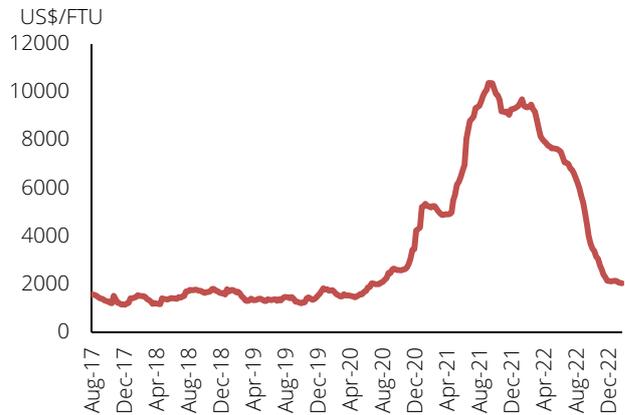
**Memory chip price projected to decline in 2023**



Source: Gartner

The lower logistics cost is also helping the auto manufacturers given that the shipping rates have corrected by some 80% from peak levels, using world container index (WCI) as a reference point.

**WCI freight rates have plunged**

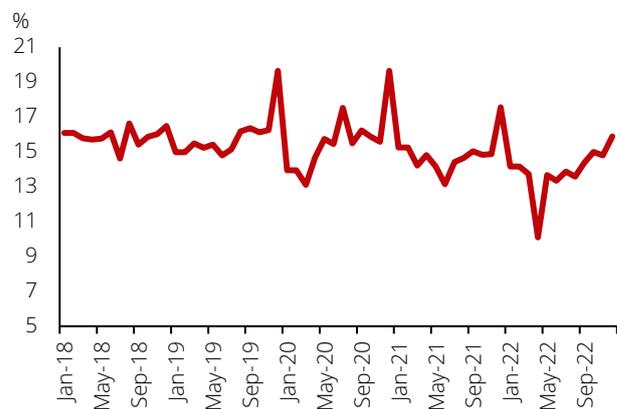


Source: Bloomberg Finance L.P.

**Overall impact on auto sector financials**

Based on the latest data, GP margins of major automobile manufacturers have been improving after the automobile manufacturers raised product prices to absorb the higher raw material costs in 2H22.

**Major automobile manufacturers' GPM trends**

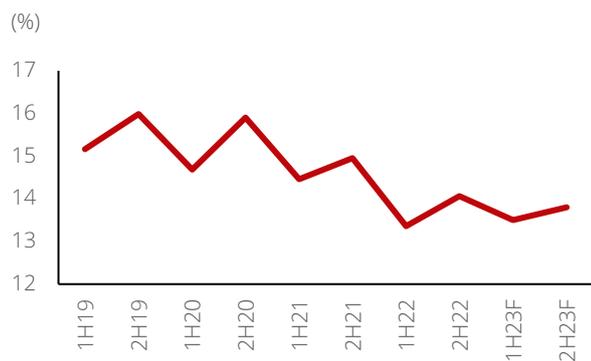


Source: CEIC

However, we expect a reversal in GP margin trends in 1H23 compared to 2H22 following the recent waves of price cuts by industry players. But we anticipate the operating environment in 2H23 to be better as the front-loading effect should have faded.

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**Automobile manufacturers' GP margin projections**



Source: CEIC; DBS HK

Hence, on an annualised basis, we estimate 2023 industry GP margins may erode by about 0.5ppt in the manufacturing segment to about 13.6% this year. But there could be a potential upswing risk especially when automakers pass some of the impact of the price cuts to the upstream companies like raw materials and auto parts suppliers.

### Top picks investment thesis and valuation

**Dip in sector valuation an accumulation opportunity.** After the deep share price correction in 2022, the automakers and parts producers are trading at 1SD below historical mean while the auto dealership at around historical mean. Although we anticipate share price volatility for the auto sector till the end of the reporting season in Mar-23, any dip is an accumulation opportunity for medium-term upside, as the auto sector, especially NEVs, is still highly favoured by the Chinese government. YTD, majority of the auto stocks have risen by 5-30%.

**Pick resilient names with the ability to meet market challenges.** With the NEV market dynamics shifting in 2023, we prefer names that demonstrate 1) high EV focus; 2) optimising model pipeline to fend off some pricing pressure; 3) benefits from expanding scale; 4) a disciplined strategy on vehicle pricing vs volume; and 5) striking a balance between investment and returns. For automakers, in order of preference, we like BYD, Li Auto and Geely Auto.

Since the global vehicle market should be supported by the improving raw material cost environment and better supply chain visibility, it should benefit auto parts players like Minth and Nexteer.

Auto dealers' operations are expected to improve following China's reopening and increase in new car supply. This also implies new car sales margins are likely to normalise this year. In this space, we like Zhongsheng.

**BYD (1211 HK; TP HK\$395) – Expanding global reach**  
**BYD, the largest NEV maker globally,** is building new brands and penetrating new markets to drive growth. The ability to develop a strong car portfolio (venturing into the Rmb300K ASP category), self-developed battery technology (and doubling capacity to about 200GWh) and hybrid technology (riding on China's rapid hybrid electric vehicle market growth) are the company's key strengths. Its self-dependent strategy in key components will continue to mitigate cost pressures especially in the EV segment.

**With the improving revenue mix,** net margin could hover around 4%, factoring in the initial start-up costs on new brands and market development. We estimate FY22-24F volume sales CAGR of 37% (FY22-24F) and net earnings to grow at c.33% per annum over the same period. This should support its valuation expansion.

While Berkshire's decision to scale down their stake in the company has impacted BYD's share price, we believe market focus should return to its strong earnings growth outlook. In fact, BYD's share price has recovered by some 30%+ from

trough since the divestment took place. Currently, Berkshire holds c.12% of the H-shares.

**Our TP of HK\$395 represents c.75% upside** from current levels. We believe the valuation upside should come from 1) earnings growth of c.33% per annum; 2) potential stock/sector re-rating as the Chinese government continues to place high importance on the NEV industry (10-15% upside); and 3) its global leadership position (10-20%; since Tesla is trading at double that of BYD's FY23F PE). The stock's valuation is attractive at around 1SD below its historical mean.

**Li Auto (2015 HK/LI US; TP HK\$115/US\$29) – Plugging into hybrid power**

**Riding on China's hybrid EV industry growth.** Li Auto, a leading player in the extended range (ER) technology, is expected to ride on China's fast growing hybrid EV market. Sales of hybrid EVs in China jumped c.150% per year in 2021 & 2022 and accounted for 22% of the total NEV market last year. We forecast the Chinese NEV market to grow at 30% this year, with hybrids accounting for over 25% of the total.

**New models to boost sales.** Li Auto plans to expand its EV technology into battery EVs. The company will launch a new ER SUV and some BEV models this year. By end 2024, the company should have close to an equal split of both EREV and BEV models for sale in the market. We project Li Auto's vehicle sales to grow by c.70% annually through 2024 on steady expansion in the Chinese NEV market.

**Margin recovery on lower cost pressure.** Li Auto targets the high-end EV segment since the commencement of its business, in which market competition is less intense compared to the mass-market segment. As raw material prices are easing, we estimate vehicle margins to post 1.5-2ppt increase through FY24. Factoring in volume sales growth, we forecast the company to post a net profit of Rmb1.2bn in FY23 vs Rmb1.9bn net loss in FY22F.

**Price-sales (P/S) ratio a better valuation method** as Li Auto has to invest to grow its top-line while the bottomline remains volatile. Our TP of US\$29/HK\$115 is benchmarked to 2.5x FY23F P/S (a slight discount to 1SD below historical average). The stock is trading at about 2x P/S FY23F, and we expect a turnaround of the business to catalyse its share price. As a pure EV player, its strong ESG profile should also support its valuation upside

**Geely Auto (175 HK; TP HK\$18.40) – Doubling of EV sales through higher electrification rate**

**A well-planned smart EV roadmap.** Geely Auto's key advantage lies in its strong parental support in vehicle electrification and autonomous driving development.

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Besides, Geely's latest "Galaxy" series will position the company in the mid-high-end of the NEV spectrum, targeting the Rmb200-300k consumer group. All in, Geely would have three EV brands spread across the Rmb150k to over Rmb300k price range. Coupled with four vehicle platforms, Geely would be able to accelerate the rollout of new electric & hybrid models. Besides, Geely's investment in ECARX should support its autonomous driving solution development.

**Doubling of EV sales in 2023** is possible, given the electrification roadmap, low base and content upgrades. In 2022, the company achieved about 70k EV sales and scale expansion is critical to lift its financial performance. The company chalked up 8% y-o-y volume expansion in 2022, largely driven by export sales (+70%). Volume shipment rose in 2H (+17%) compared to 1H (+3%) and hence, we estimate 2H to post 15-20% earnings growth

**Stronger earnings could lift valuation.** Due to the de-rating of the sector, Geely's valuation was also being affected. Currently, the stock is trading at 1SD below its historical average. We believe future earnings improvement should bring its valuation closer to mean. We estimate FY22-24F net earnings growth of 37%, supported by 12% volume annual growth and better product margins on lower input costs.

**TP pegged to 20x FY23F PE.** Our HK\$18.40 TP is pegged to 22x FY23F PE (historical average). We anticipate valuation upside to come from 1) strong net earnings CAGR (upside of 37%); 2) valuation re-rating especially on the company's electrification strategy; and 3) potential listing of Zeekr. Based on Zeekr's recent A-series share issue, Zeekr's valuation translates to some 20% of our TP.

### Minth (425 HK; TP HK\$30) – Riding the electrification wave in key markets

**Advancing on the world's EV stage.** Minth's extensive market and consumer coverage (both domestic and global auto OEMs) will enable the company to win more light-weight parts and EV battery housing projects as the overall supply chain network improves in 2023. Besides, the global auto market is expected to be more stable compared to the disruption in 2022, providing better visibility on the business outlook.

**Factors driving business outlook.** With commodity price correction of 20-40% and logistic freight rates lower by over 50%, these are positives on Minth's production and operating cost structure. Product margins are expected to improve on scale benefit and a more predictable cost structure, supporting margin expansion of 1.5-2ppts in

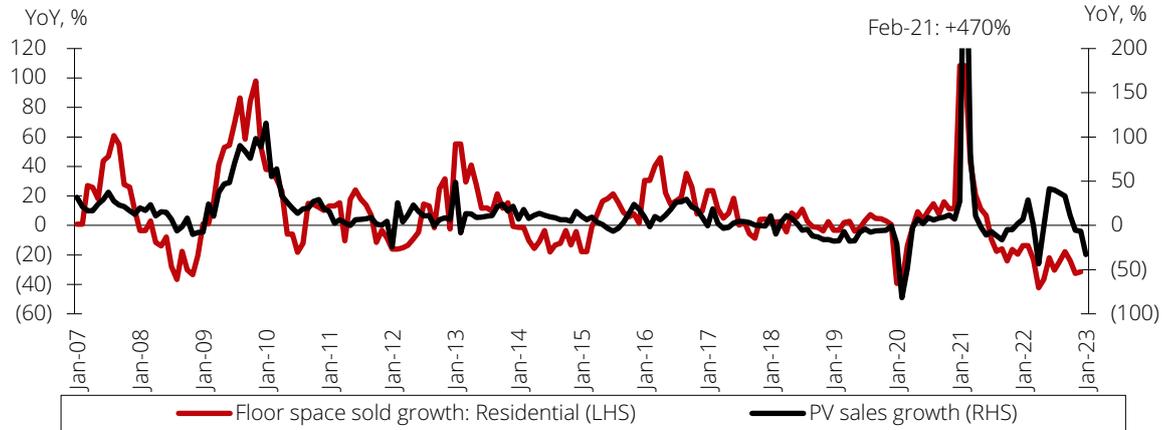
FY22-24F. We estimate total revenue and net earnings to post 20%/18% CAGR from FY21-24F.

**Global vehicle market to post better sales.** Vehicle sales in the US and Europe have been rising since Aug-22 and the momentum has continued into Jan-23. We project global light vehicle market sales to grow by c.7% in 2023 vs c.1% decline in 2022. This is positive on Minth's new order flows, and we estimate its total outstanding backlog to reach some Rmb200bn in 1-2 years' time, with the share of high value content projects (such as battery housing and aluminium parts) to hit c.70% of total, led by the rising global electrification rate.

**Maintain BUY; stronger earnings to support valuation multiples expansion.** Our HK\$30 TP is pegged to 15x FY23F PE (15% discount to 5-year historical average given early recovery), which translates to c.0.5x PEG, or upside of c.43%. We believe FY23F net earnings growth of 30% should support valuation expansion. As the company widens its overseas presence, share of overseas revenue is estimated to cross 50% this year, up from 46% in 1H22, which should also lift its valuation multiples.

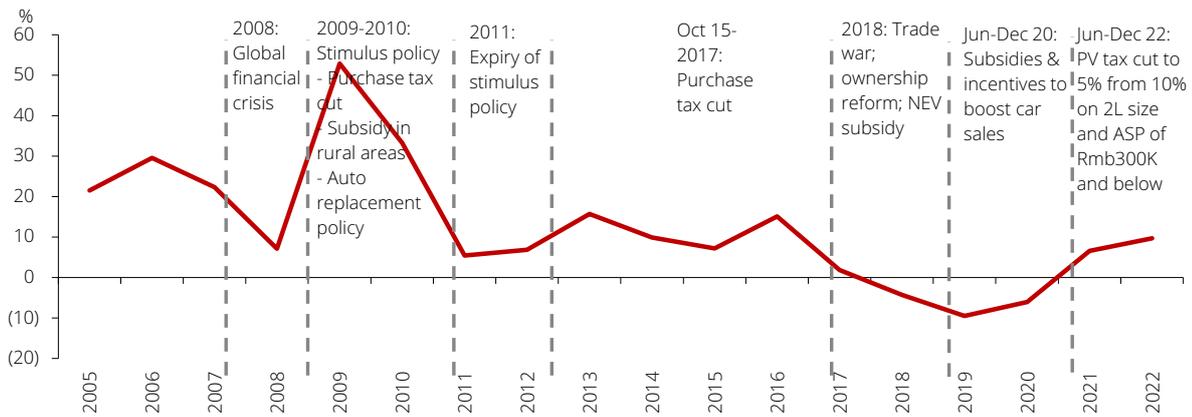
Appendix

China property volume sales vs PV sales growth



Source: CEIC

Auto policy impact on PV market sales



Source: CEIC; DBS HK

## China local governments' stimulus policy (2023)

Date	Province/City	Details
3-Jan	Henan	5% NEV purchase subsidy based on selling price (max: Rmb10k/vehicle) till 3/30/2023
3-Jan	Yongkang (Zhejiang)	New vehicle purchase subsidy from 1/1/2023 till 3/31/2023 based on selling price Rmb3k for Rmb30k<ASP<Rmb100k Rmb5k for Rmb100k<ASP<Rmb200k Rmb8k for Rmb200k<ASP<Rmb300k Rmb10k for ASP>Rmb300k
4-Jan	Sanya	New vehicle purchase subsidy from 10/27/22 till 2/20/23 based on naked car selling price Rmb3k for ASP<Rmb100k Rmb4k for Rmb100k<ASP<Rmb200k Rmb6k for ASP>Rmb200k
9-Jan	Shenyang	Rmb4k CNY consumption voucher for automobile to from 1/10/23 till 2/28/23
10-Jan	Hunan	Improve charging infrastructure network in urban and rural areas and support integration of chargers into car parks. Expand charging coverage ratio in large-scale car parks to achieve 10% more than the ratio of registered urban NEV and achieve 50% charging coverage in residential area of Changzhutan by 2025
11-Jan	Tianjin	New vehicle purchase subsidy based on selling price Rmb2k for Rmb50k<ASP<Rmb150k Rmb4k for Rmb150k<ASP<Rmb250k Rmb5k for Rmb250k<ASP<Rmb350k Rmb6k for ASP>Rmb350k
16-Jan	Yueqing (Wenzhou)	Provide a total of Rmb10m automobile consumption voucher across the city, individuals will be getting quota of Rmb2k-8k
17-Jan	Yunnan	Strengthen charging infrastructure coverage and encourage capable cities to boost NEV sales and increase adoption of NEV in public fleet
19-Jan	Shandong	Rmb3k-6k consumption voucher for registered NEV PV purchase Rmb2k-5k consumption voucher for ICE PV purchase Extra Rmb1k consumption voucher for owners who replace old vehicles with new ones
20-Jan	Heilongjiang	Provide a total of Rmb600m consumption voucher to encourage OEM to provide discount of not more than 10% on passenger vehicle
22-Jan	Wuxi	Provide a total of Rmb12m NEV consumption voucher. Rmb3k/BEV and Rmb1.5k/other NEV
28-Jan	Shanxi	Push out favourable policies e.g. provide subsidy on new energy public transport, NEV purchase tax waiver, and reduction in parking fees
29-Jan	Shanghai	Extend subsidy on NEV purchase and replacement Provide subsidy of Rmb10k/BEV for individual customer who sells/transfers Shanghai-registered vehicle and purchases new BEV
29-Jan	Zhejiang	Loosen policy on NEV road usage Encourage public car park to provide one-hour free parking for NEV
31-Jan	Harbin	Provide limited-time offer for vehicle purchase subsidy starting from 2/4/2023, giving out a total of Rmb10m
1-Feb	Ningbo Haishu	Provide consumption voucher ranging from Rmb1.5k-10k/vehicle based on selling price during Chinese Lantern Festival event
3-Feb	Nanjing	Extend NEV purchase tax waiver and increase promotion of NEV e.g. organise more test driving activities in the area, promote electrification in public fleet and improve charging facilities coverage
3-Feb	Zhengzhou	Extend CNY vehicle replacement consumption voucher program from 2/6/2023 till 3/10/2023. A total of Rmb60k voucher will be given for ICE vehicles and Rmb40k for NEV
4-Feb	Hefei	Financial subsidy of not more than Rmb5k/vehicle for vehicles sold/transferred through official channels till 6/30/2023
6-Feb	Henan	Encourage promotion of NEV into rural area, guide OEM to provide more incentives on NEV purchase to facilitate adoption of NEV in rural area
6-Feb	Hunan	Rmb5k subsidy for old vehicle replacement till 6/30/2023
7-Feb	Sichuan	Provide NEV purchase tax waiver and organise the second China (Sichuan) International Panda Consumption Festival to promote NEV purchase
7-Feb	Beijing Daxing	Price reduction on new vehicle purchased in 4S stores based on naked car selling price -Rmb2k for Rmb100k<ASP<Rmb200k -Rmb3k for ASP>Rmb200k
11-Feb	Tianjin	To issue additional 35,000 additional PV license plates from Feb-Dec 2023.

Source: Chinese governments

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Chinese automakers' new model plans

Model	L7	ES8 Prime	EC7	G7	Codename: H93	B11	AITO M9	Neta E
Automaker	Li Auto	NIO	NIO	XPeng	XPeng	Leapmotor	Huawei/ Seres	Hozon
Segment	Flagship family SUV	Mid-large SUV	Mid-size luxury crossover SUV	Coupe-like SUV	MPV	Mid-large SUV	Luxury SUV	Sports car
Battery tech	EREV	BEV	BEV	BEV	BEV	BEV/EREV	BEV/EREV	BEV
Launch/ Delivery Date	Feb-23	Dec-22	Dec-22	Apr-23	2023	Sep-23	Sep-23	1H23
Price range	Rmb320-380k	Rmb528-586k	Rmb488-546k	Rmb200-250k	TBC	~Rmb250k	~Rmb500k	TBC

Model	Panda Mini EV	BAW	Zeekr 009	Codename: Zeekr BX1E	Codename: Zeekr CS1E	Codename: G426	Codename: FX12	New mid-high end brand
Automaker	Geely	BAIC	Geely	Geely	Geely	Geely	Geely	Geely
Segment	Citycar	Minicar	Minivan	Compact SUV	Sedan	Compact SUV	Compact SUV	Sedan
Battery tech	BEV	BEV	BEV	BEV	BEV	EREV	PHEV	BEV/PHEV/EREV
Launch/ Delivery Date	Feb-23	Feb-23	Nov-22	Apr-23	2H23	2023	Jun-23	2023
Price range	Rmb40-54k	Rmb47-57k	Rmb499-588k	>Rmb200k	>Rmb200k	~Rmb100k	Rmb120-170k	Rmb200-300k

Model	LR7	Seagull	Sea Lion	Dynasty Ming: Yin/Yang	Yangwang U8	Yangwang U9	Denza N7	New Denza model
Automaker	Livan (Geely & Lifan)	BYD	BYD	BYD	BYD	BYD	BYD	BYD
Segment	Coupe SUV	Minicar	SUV	Mid-large SUV	Mid-large off-road SUV	Mid-large SUV	Mid-size SUV	Mid-large SUV
Battery tech	BEV	BEV	BEV	BEV/PHEV	BEV	BEV	BEV	TBC
Launch/ Delivery Date	Jun-22	Mar-23	2023	2023	Jan-23	Jan-23	Apr-23	2023
Price range	<Rmb110-130k	Rmb60-80k	~Rmb250k	TBC	Rmb800-1,500k	Rmb800-1,500k	TBC	TBC

Model	Voyah Chasing Light	AION Hyper SSR	AION Hyper GT
Automaker	Dongfeng	GAC	GAC
Segment	Full-size sedan	Supercar	Mid-large SUV
Battery tech	BEV	BEV	BEV
Launch/ Delivery Date	Dec-22	Sep-22	1H23
Price range	Rmb323-433k	Rmb129-169k	>Rmb300k

Source: Company

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Foreign automakers' new model plans

Model	Sylphy new model	Qashqai new model	VE-1	bZ4X	bZ4X	bZ3	New self brand
Automaker	Dongfeng-Nissan	Dongfeng-Nissan	GAC-Honda	FAW-Toyota	GAC-Toyota	FAW-Toyota+BYD	Dongfeng-Honda
Segment	Compact sedan	SUV	SUV	SUV	SUV	Mid-size sedan	TBC
Battery tech	PHEV	PHEV	BEV	BEV	BEV	BEV	TBC
Launch/Delivery Date	Mar-23	2023	Sep-22	Oct-22	Oct-22	Mar-23	2023
Price range	TBC	Rmb130k	Rmb160-187k	Rmb200-290k	Rmb199.8k	Rmb190-220k	TBC

Model	iX1	i5	A6 E-tron	Cybertruck	Polestar 3
Automaker	BMW	BMW	Audi	Tesla	Volvo
Segment	SUV	Touring	Station Wagon	Light-duty truck	Mid-size crossover SUV
Battery tech	BEV	BEV	BEV	BEV	BEV
Launch/Delivery Date	Jun-22	2023	May-22	2023	Oct-22
Price range	~Rmb300k	USD65-70k	TBC	> USD40k	> USD85.3k

Source: Company

Foreign automakers embarking in vehicle electrification

Company	BMW	Audi	Mercedes-Benz	Toyota
Capex \$ investment into EVs development	US\$6.1bn	EUR35bn (USD42.5bn)	> EUR60bn	US\$70bn
Number of new EV models	12 BEV models and 13 PHEV models by 2025	20 BEV models and 10 PHEV models by 2025	>3 BEV models by 2023	70 electrified models by 2025
Electrification rates / share of EV sales in 2022	9.0%	7.3%	15.6%	28.2%
Targets	BEV penetration 2023 target: 15% 2030: > 50%	100% sales by 2033	100% sales by 2030 All newly launched architectures will be electric-only from 2025 onwards	Sell 3.5m all-electric vehicle annually by 2030

Company	Volkswagen	General Motors	Ford
Capex \$ investment into EVs development	EUR33bn	US\$27bn	US\$50bn
Number of new EV models	10 BEV models by 2026	30 EV models by 2025	7 EV models by 2024
Electrification rates / share of EV sales in 2022	6.9%	1.7%	3.3%
Targets	EV accounting for 70% sales in Europe and > 50% sales in NA and China by 2030	50% by 2030	>600k annual EV sales in Europe by 2026

Source: Company

## China Auto Sector

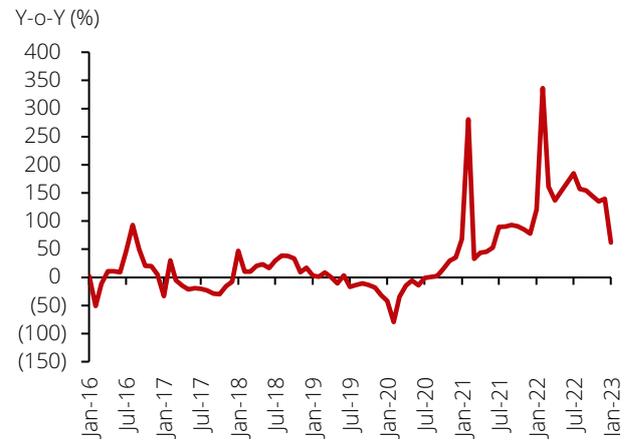
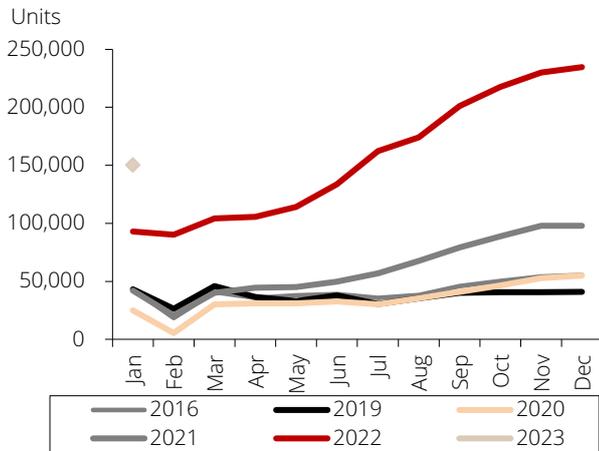
## Automobile company performance table

Company	Code	Share Price Performance (%)					YTD
		1-month	3-month	6-month	1-year		
Grand Baoxin Auto	HK1293	(3.2)	22.7	(8.0)	(28.1)	3.4	
China Harmony	HK3836	(11.9)	23.3	(54.7)	(74.4)	(7.5)	
China Meidong	HK1268	23.4	58.5	11.2	(48.0)	21.7	
China Yongda	HK3669	8.9	63.8	7.0	(34.6)	15.5	
China ZhengTong	HK1728	9.8	71.8	36.7	4.7	(5.6)	
Zhongsheng	HK881	(5.0)	27.3	6.4	(27.2)	10.2	
Fuyao Glass	HK3606	12.4	16.0	1.2	(11.4)	16.3	
MintH	HK425	5.3	29.1	2.0	(37.7)	8.5	
Nexteer	HK1316	3.9	19.3	(13.0)	(34.1)	14.9	
Weichai Power	HK2338	6.9	41.7	9.9	(17.2)	12.8	
Xingda	HK1899	4.4	11.3	9.9	(4.6)	6.4	
Xinyi Glass	HK868	(6.7)	30.8	0.1	(26.3)	8.5	
BAIC Motor	HK1958	3.5	23.0	15.2	(18.7)	13.5	
BYD	HK1211	21.4	24.8	(15.6)	3.7	27.6	
Chongqing Changan	CH200625	5.9	4.5	(17.6)	30.1	6.8	
Dongfeng Motor	HK489	(0.2)	15.8	(14.2)	(34.3)	1.6	
Geely Auto	HK175	1.8	18.5	(31.8)	(29.5)	6.7	
Great Wall Motor	HK2333	6.9	17.5	(11.1)	(48.7)	7.1	
Guangzhou Auto	HK2238	1.4	4.1	(26.2)	(27.9)	6.8	
Li Auto	HK2015	17.9	31.6	(26.0)	(6.8)	28.1	
Qingling	HK1122	7.7	19.1	(7.4)	(29.1)	12.0	
SAIC Motor	CH600104	2.6	2.4	(7.6)	(20.4)	3.1	
Sinotruk	HK3808	0.2	49.3	33.0	2.4	10.5	
XPENG	HK9868	(1.8)	24.4	(56.8)	(71.0)	5.0	
NIO	HK9866	9.5	(2.3)	(47.6)	n.a.	9.7	

Source: Thomson Reuters

BYD – total PV monthly sales

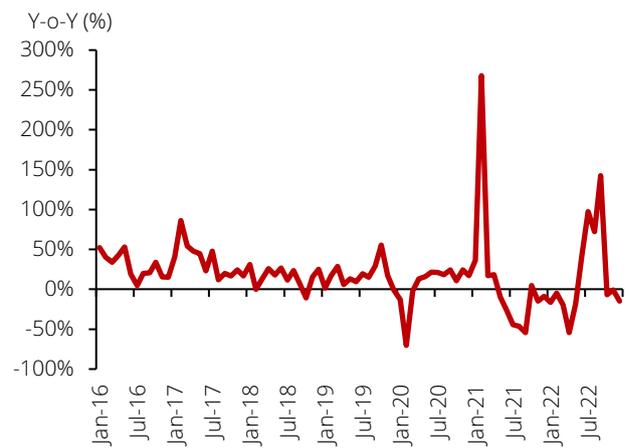
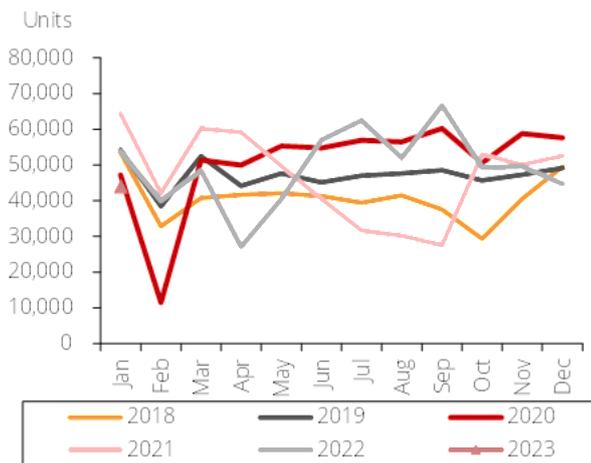
BYD – total PV monthly sales growth



Source: Company

BAIC Benz – total monthly sales

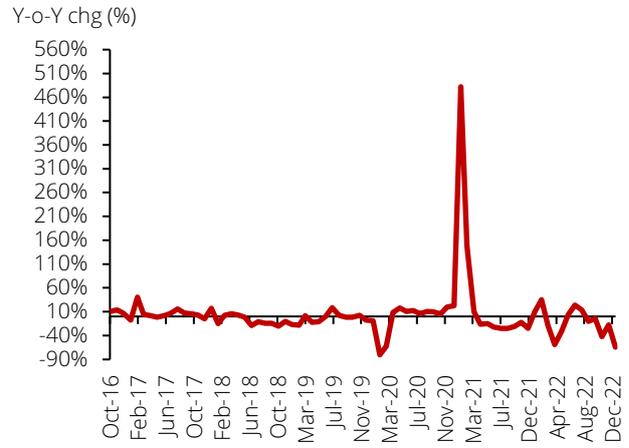
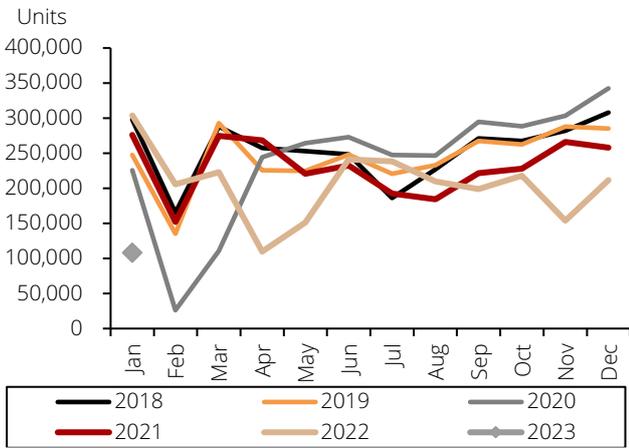
BAIC Benz – monthly sales growth



Source: Company

Dongfeng - total monthly sales

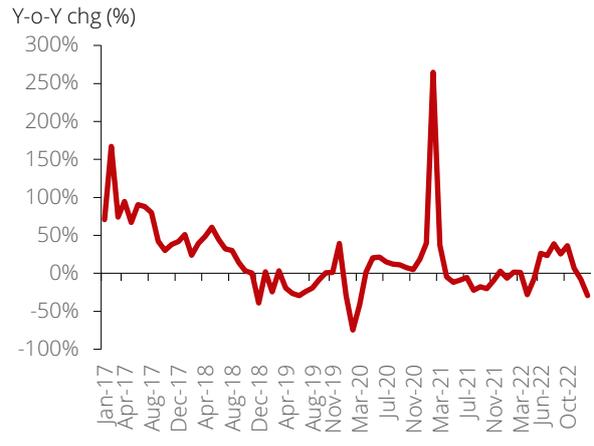
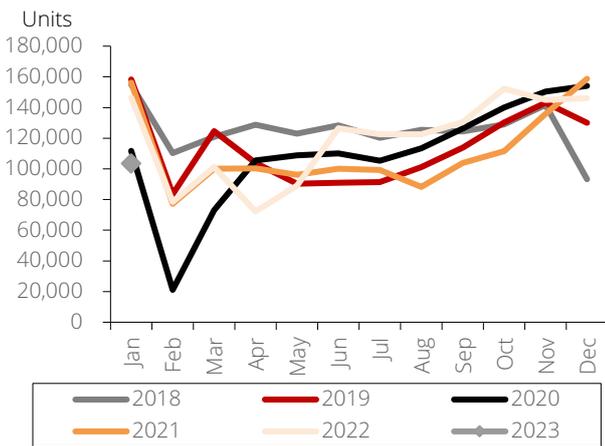
Dongfeng - total monthly sales growth



Source: Company

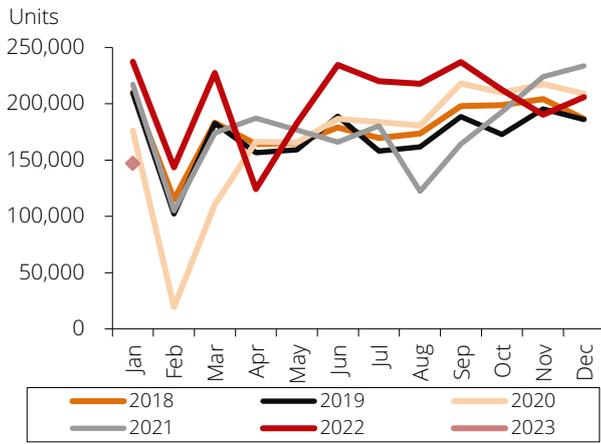
Geely - total monthly sales

Geely - total monthly sales growth

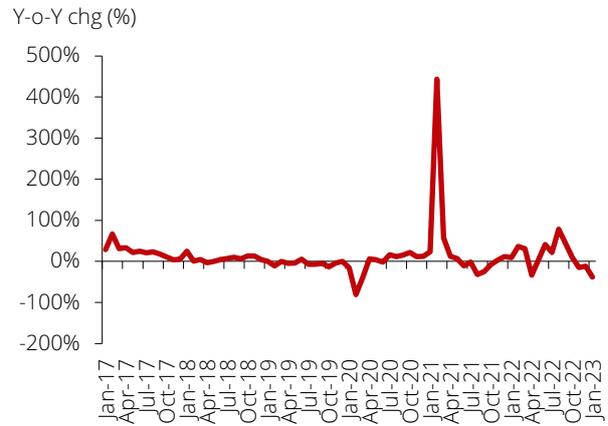


Source: Company

GAC - total monthly sales

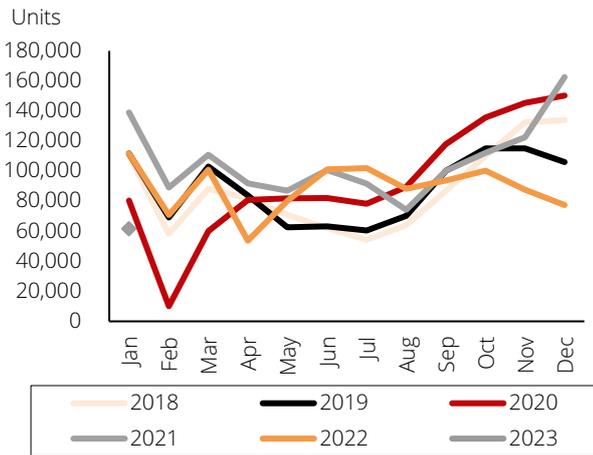


GAC - total monthly sales growth

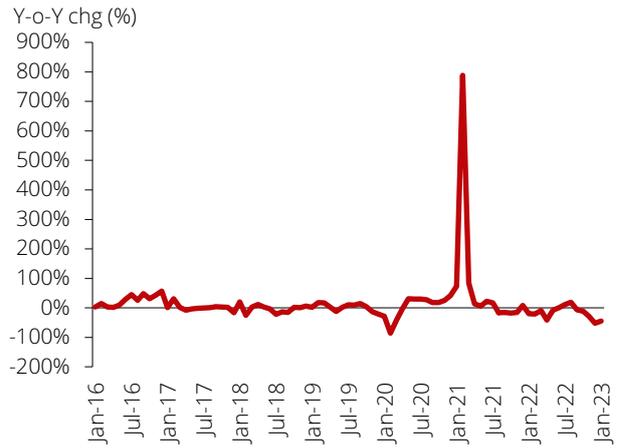


Source: Company

Great Wall China - total monthly sales

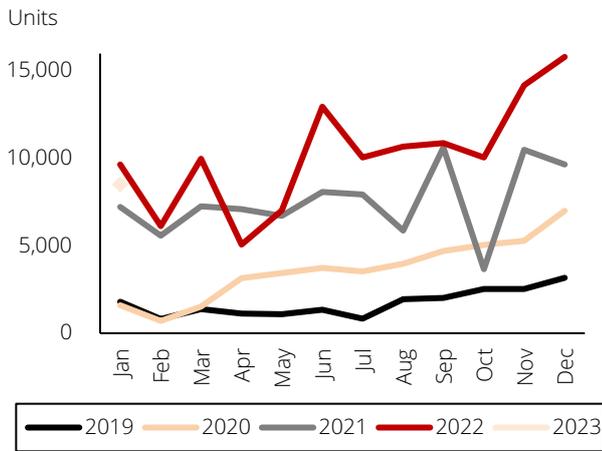


Great Wall China - total monthly sales growth



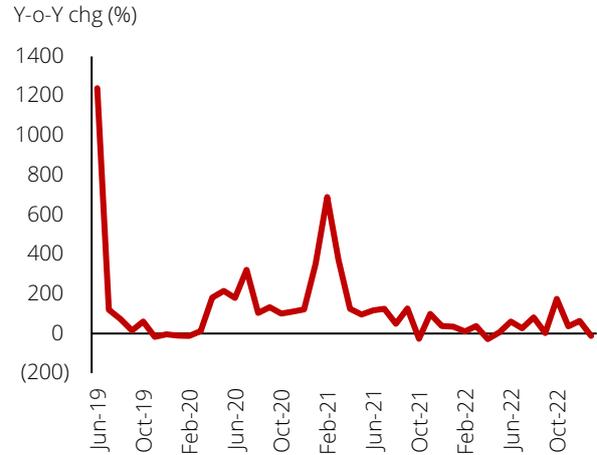
Source: Company

NIO - total monthly sales

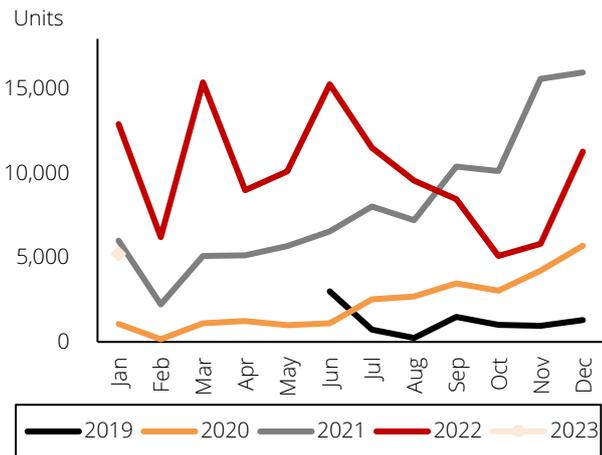


Source: Company

NIO - total monthly sales growth

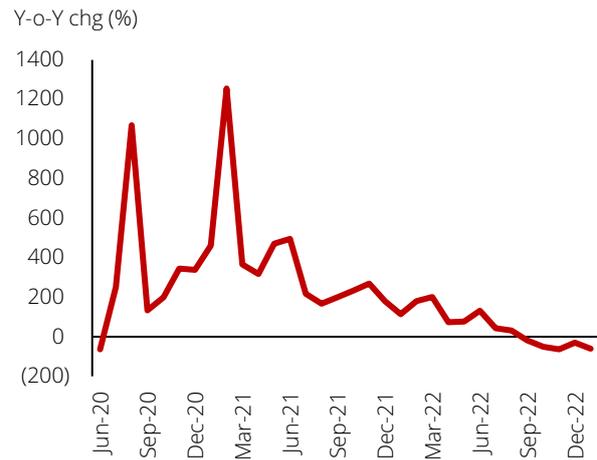


XPeng - total monthly sales

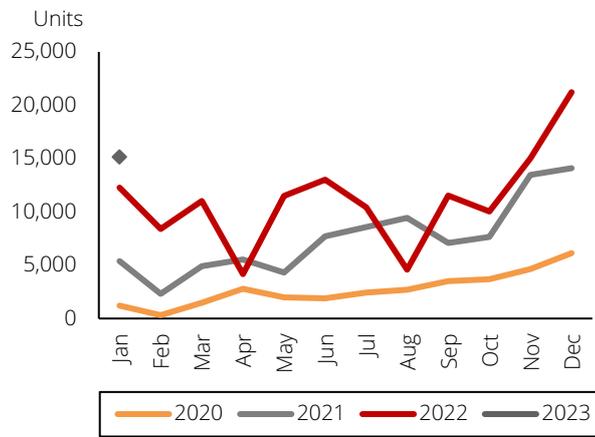


Source: Company

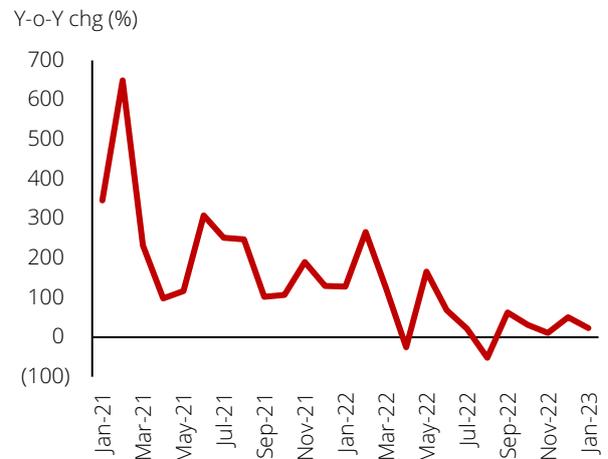
XPeng - total monthly sales growth



Li Auto - total monthly sales

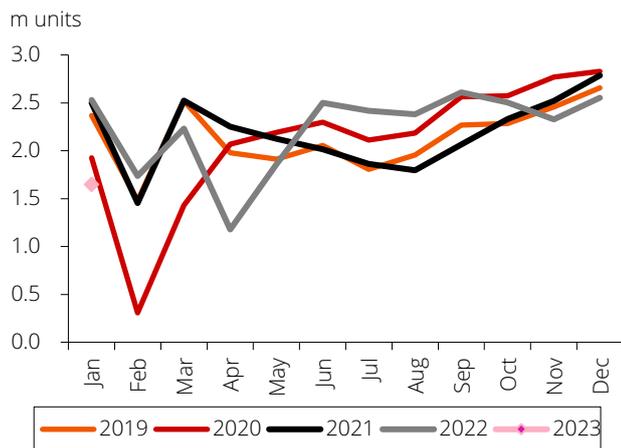


Li Auto - total monthly sales growth

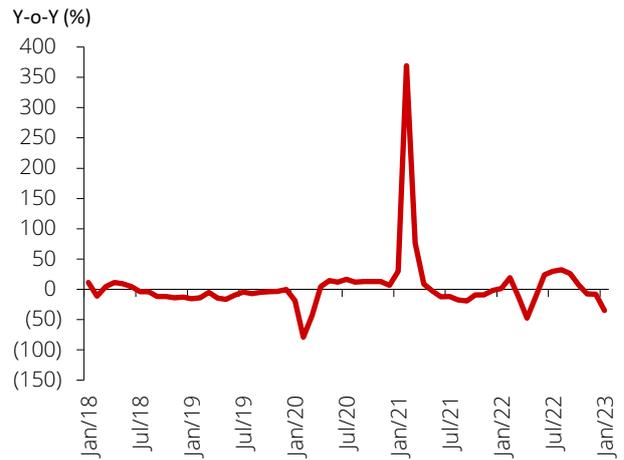


Source: Company

Monthly total vehicle sales in China

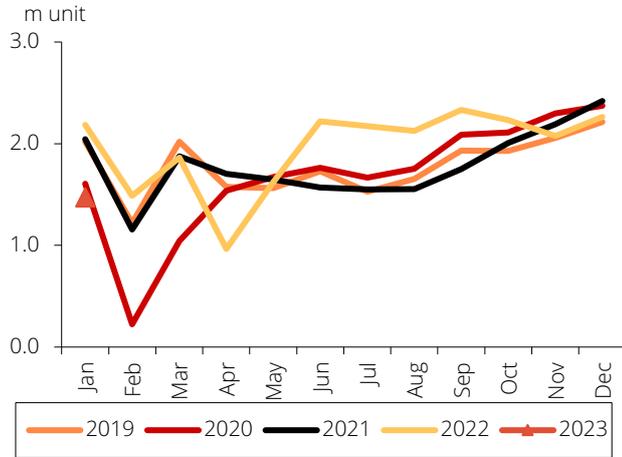


Monthly total vehicle sales growth

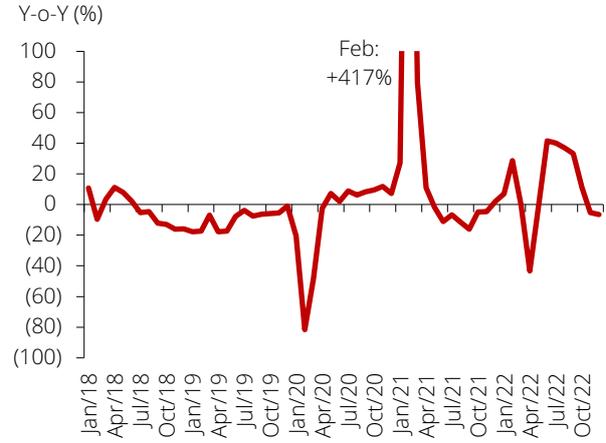


Source: CEIC

Monthly PV sales in China

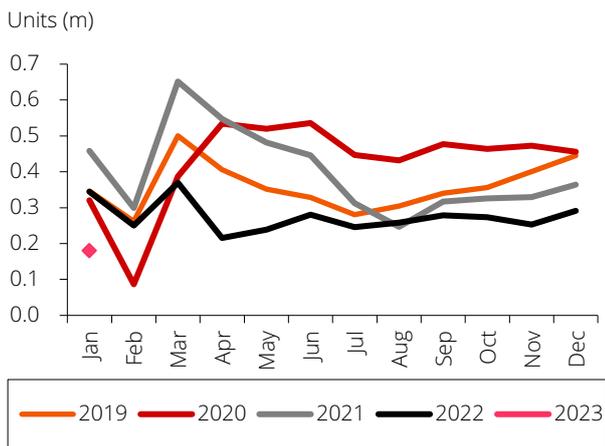


Monthly PV sales growth

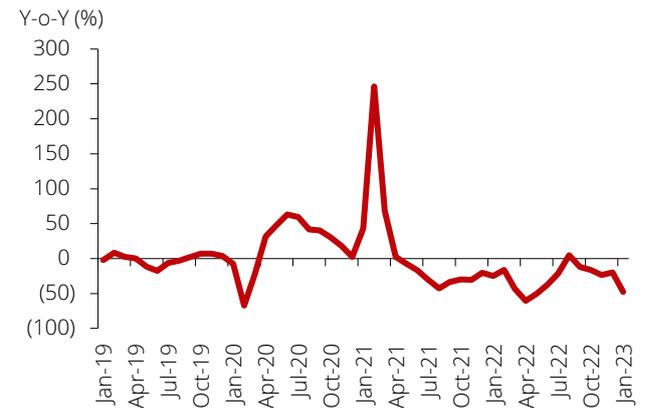


Source: CEIC

Monthly CV sales in China

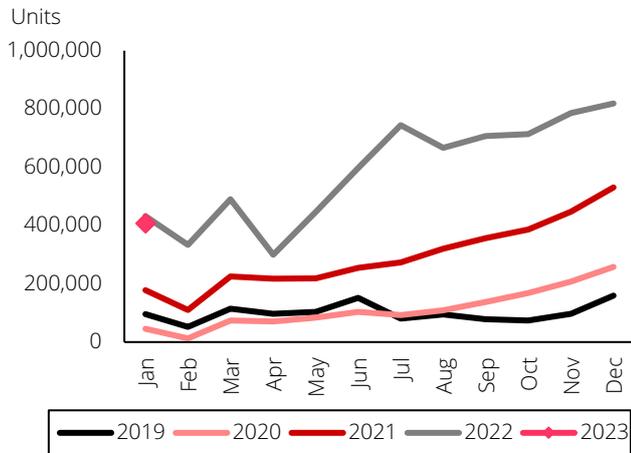


Monthly CV sales growth

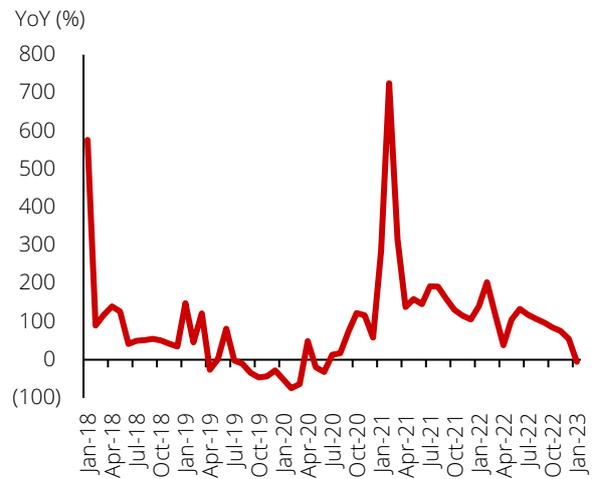


Source: CEIC

Monthly NEV sales in China

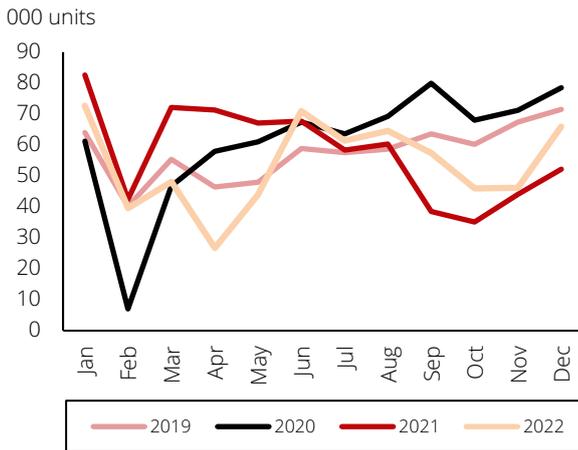


Monthly NEV sales growth

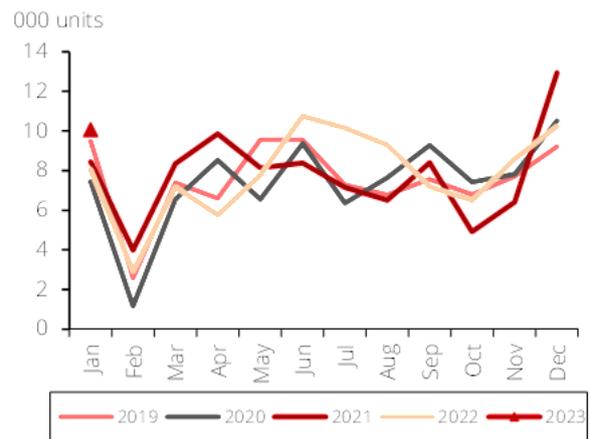


Source: CEIC

Audi – monthly volume sales

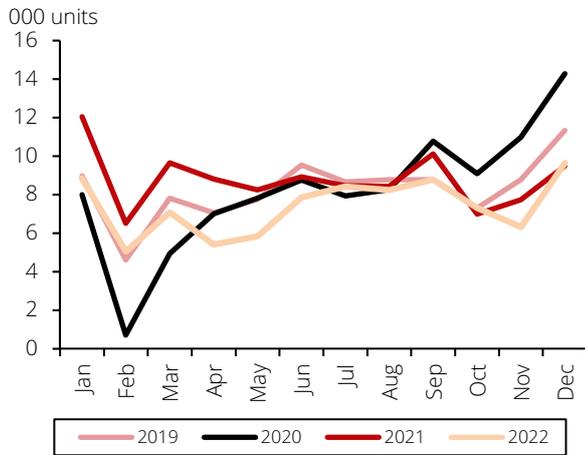


Porsche - monthly volume sales

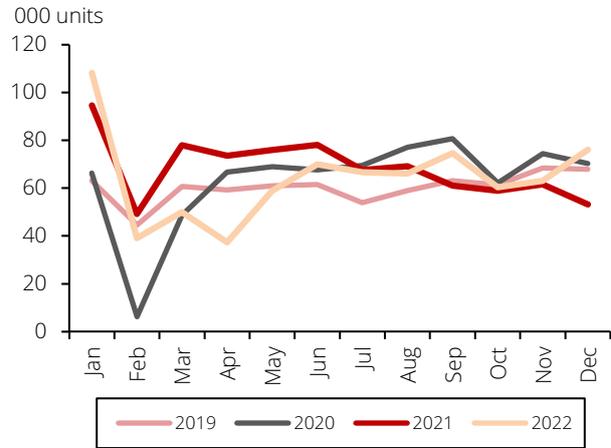


Source: Company

Jaguar Land Rover - monthly volume sales

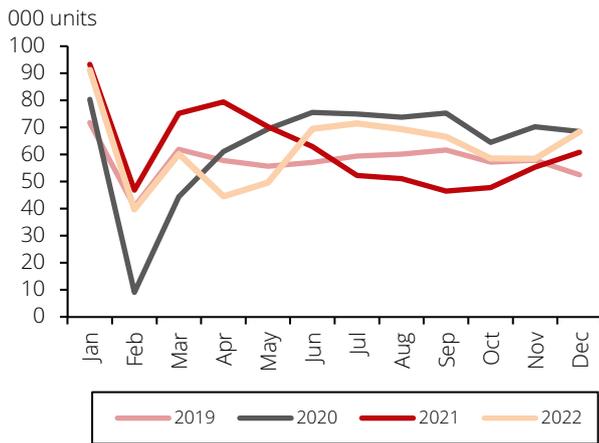


BMW - monthly volume sales

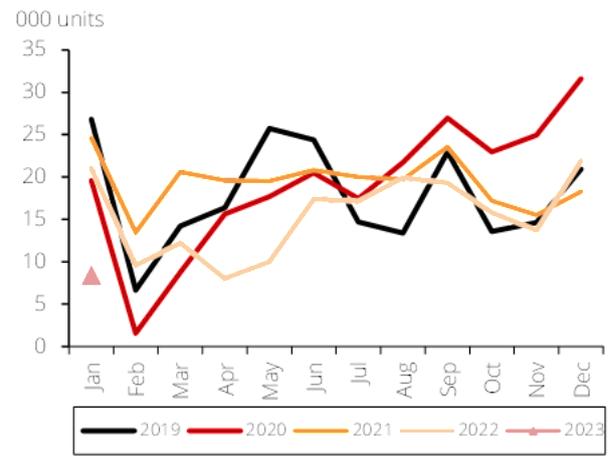


Source: Company

Mercedes Benz - monthly volume sales

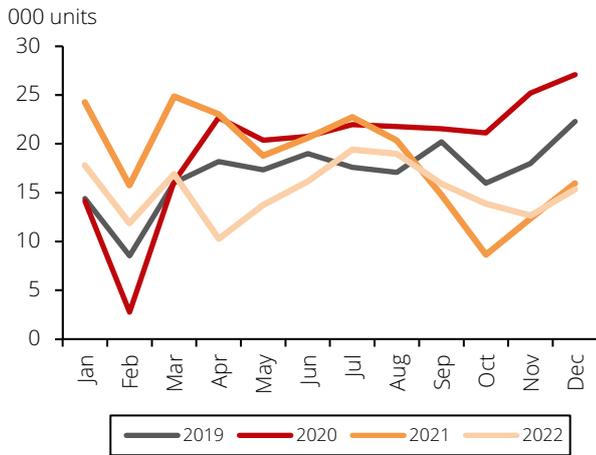


Cadillac - monthly volume sales



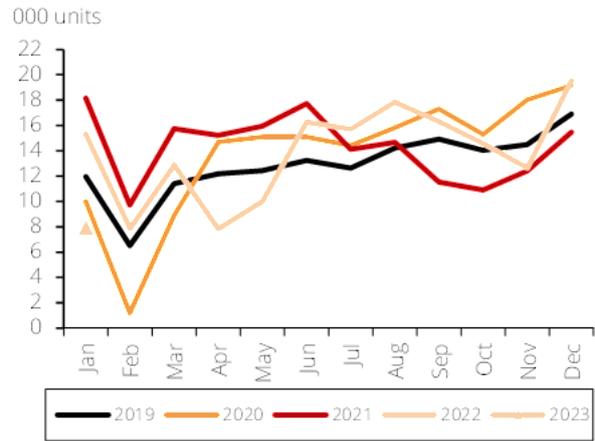
Source: Company

Lexus - monthly volume sales

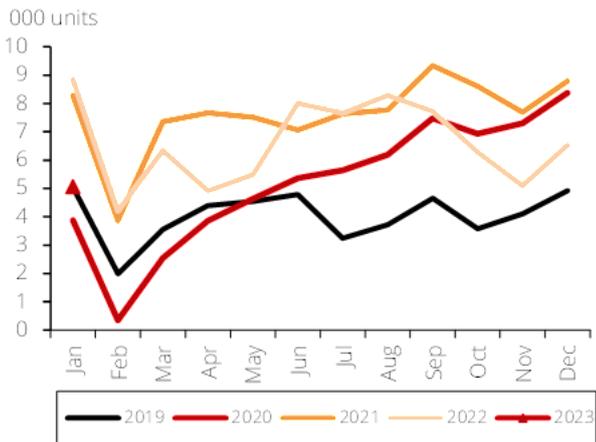


Source: Company

Volvo - monthly volume sales

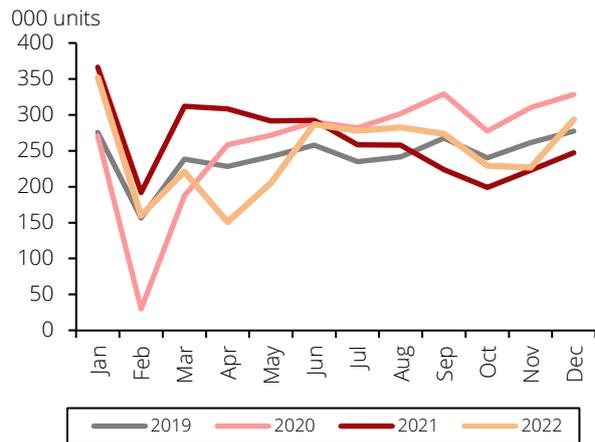


Lincoln - monthly volume sales



Source: Company

Premium cars - monthly volume sales

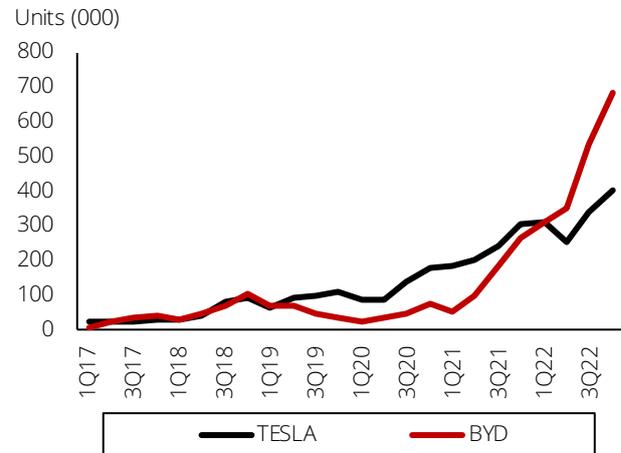


Vehicle inventory average turnover days



Source: CEIC

BYD vs Tesla volume sales



Source: Company

Automakers PE



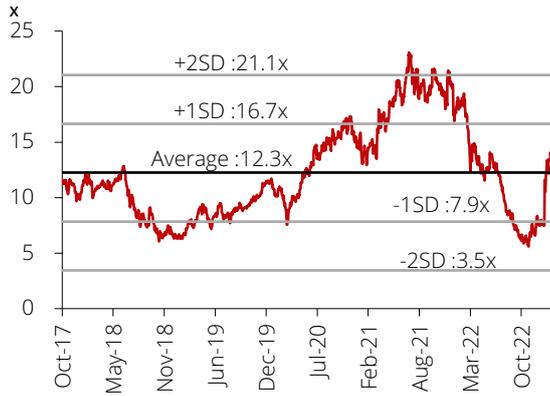
Source: Thomson Reuters, DBS HK

Auto parts PE



Source: Thomson Reuters, DBS HK

Auto dealership PE

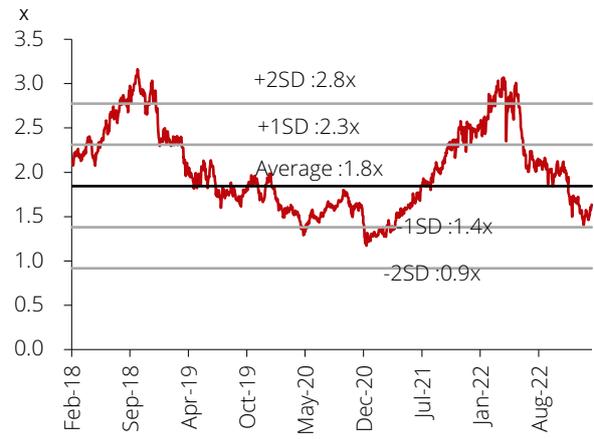


Source: Thomson Reuters, DBS HK

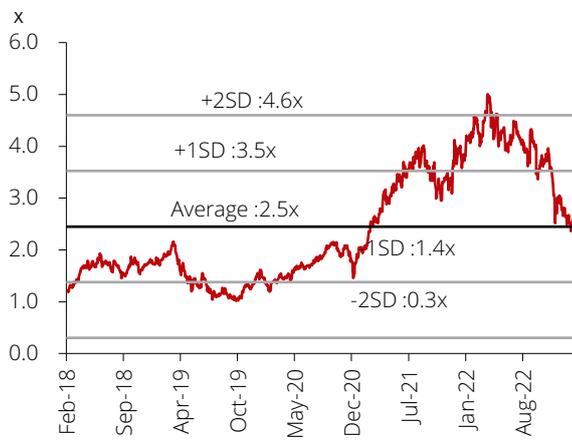
China auto makers PB chart



China parts manufacturers PB chart

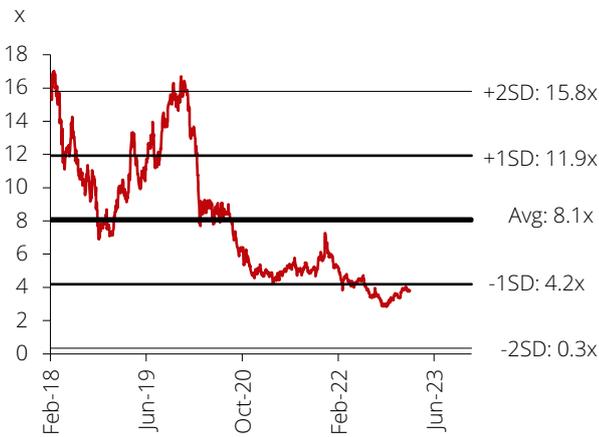


China auto dealerships PB chart

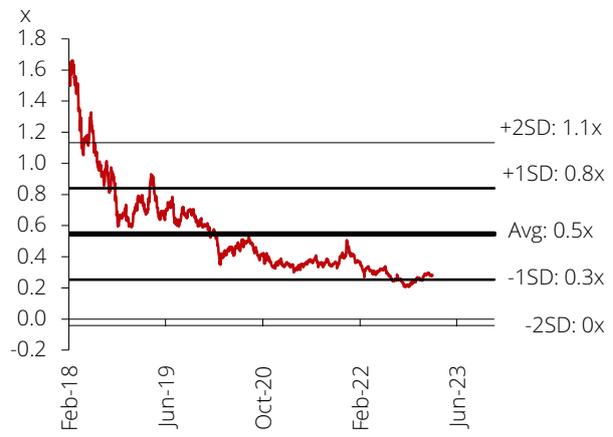


Source: Thomson Reuters, DBS HK

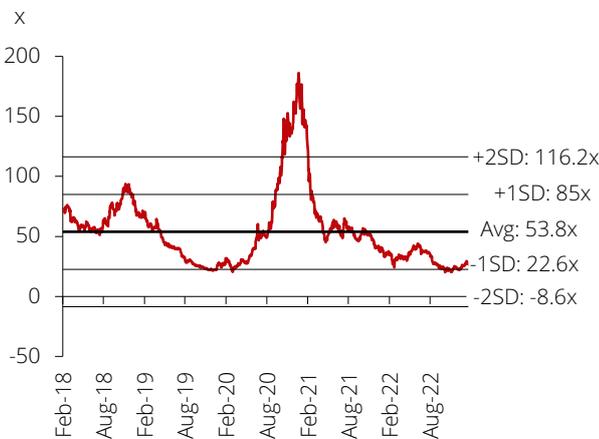
**BAIC Motor - PE chart**



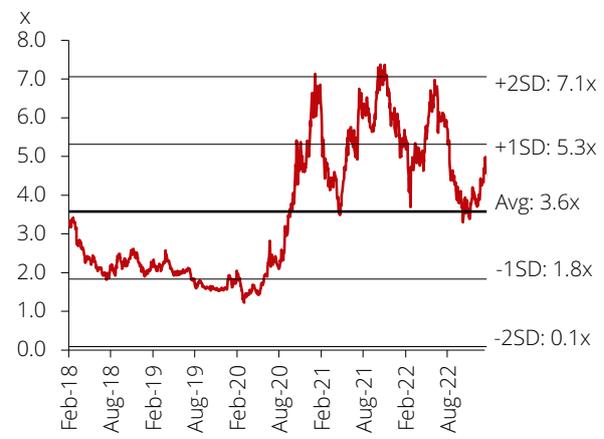
**BAIC Motor - PB chart**



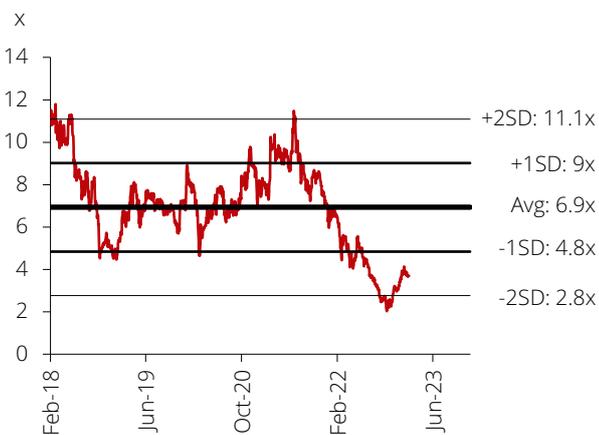
**BYD - PE chart**



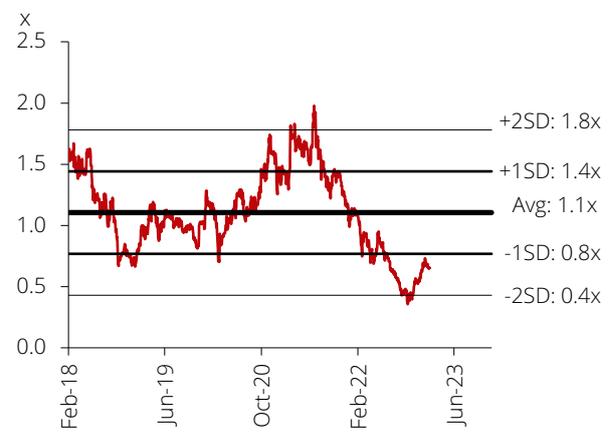
**BYD - PB chart**



**China Yongda - PE chart**

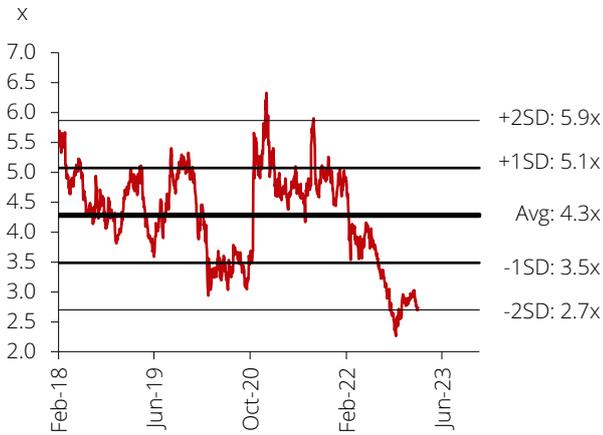


**China Yongda - PB chart**

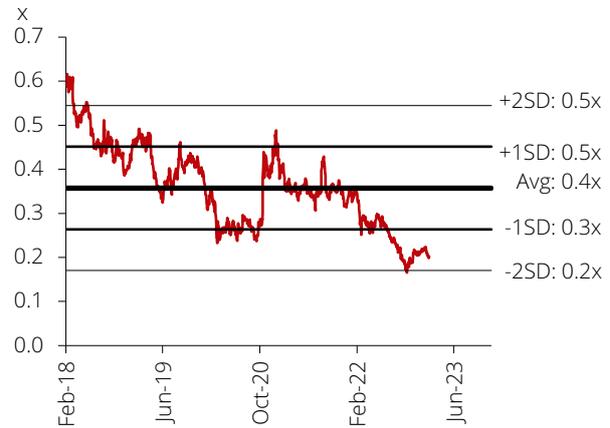


Source: Thomson Reuters, DBS HK

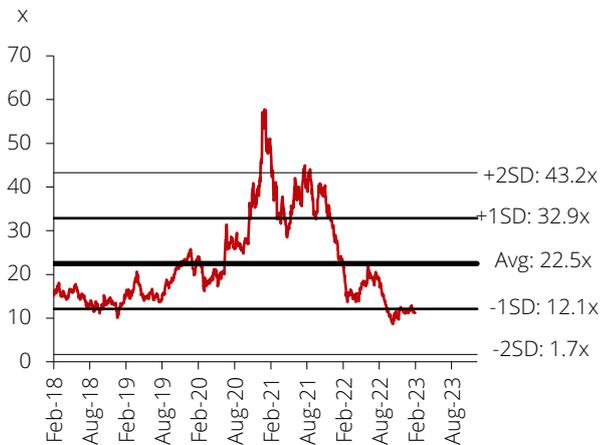
Dongfeng Motor - PE chart



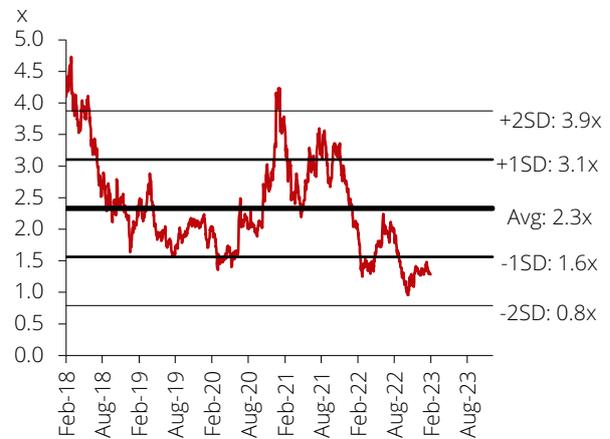
Dongfeng Motor - PB chart



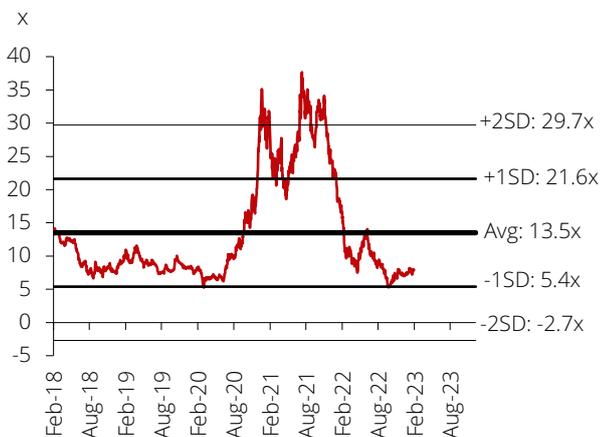
Geely - PE chart



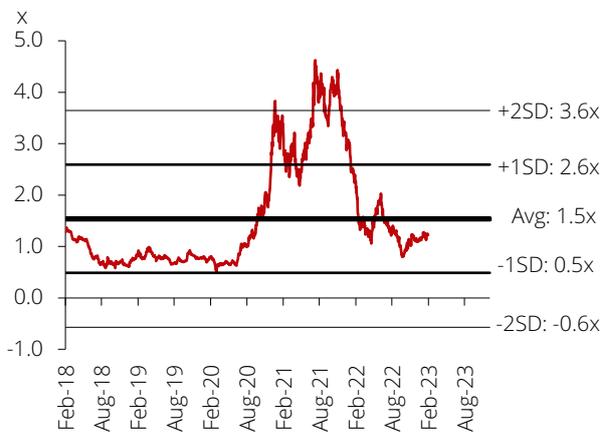
Geely - PB chart



Great Wall - PE chart

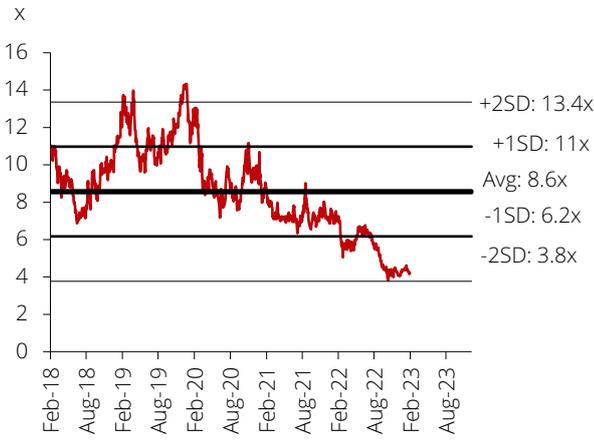


Great Wall - PB chart

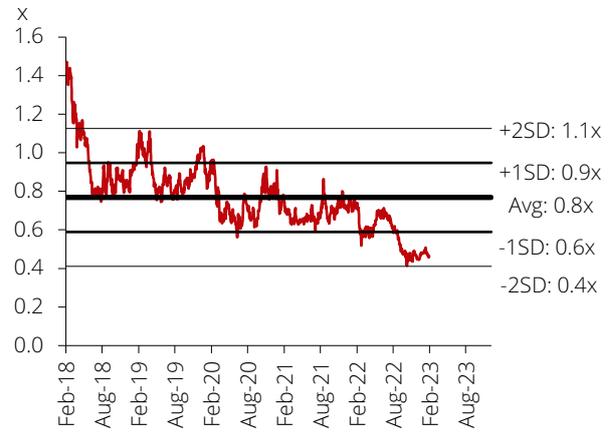


Source: Thomson Reuters, DBS HK

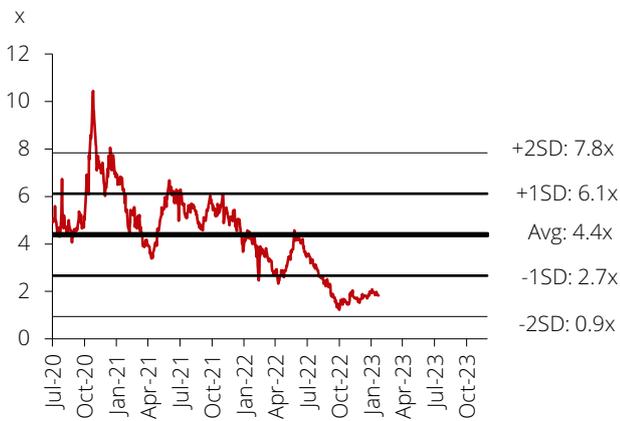
Guangzhou Auto - PE chart



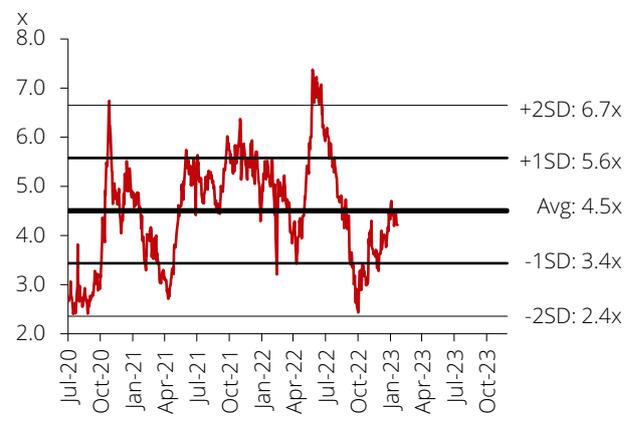
Guangzhou Auto - PB chart



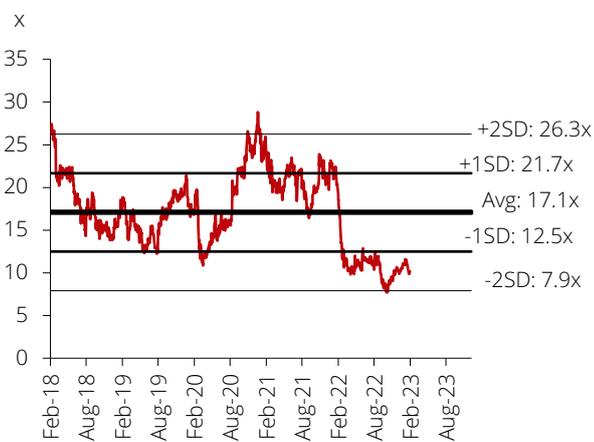
Li Auto - PS chart



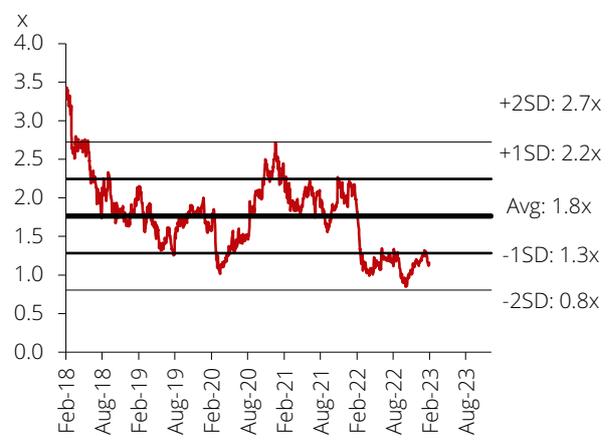
Li Auto - PB chart



Minh - PE chart

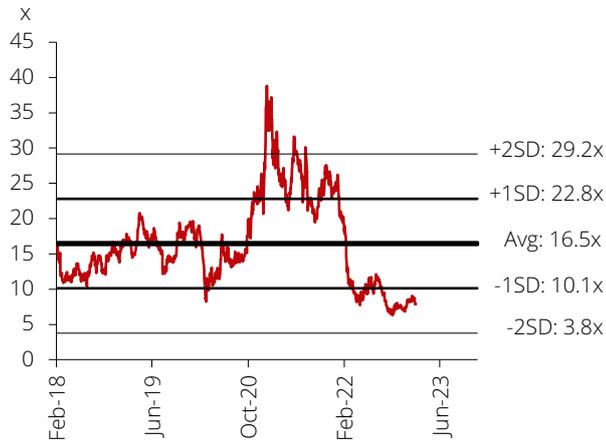


Minh - PB chart

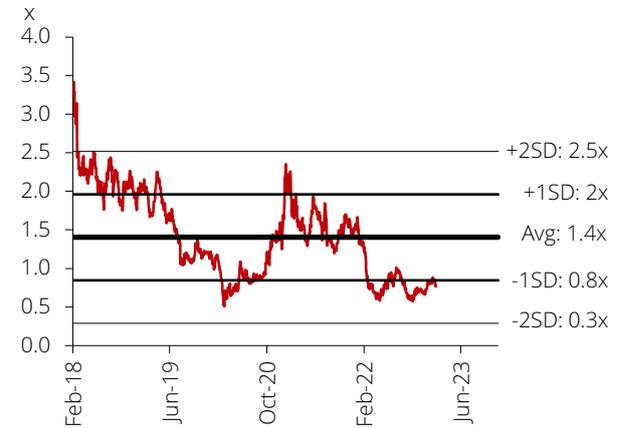


Source: Thomson Reuters, DBS HK

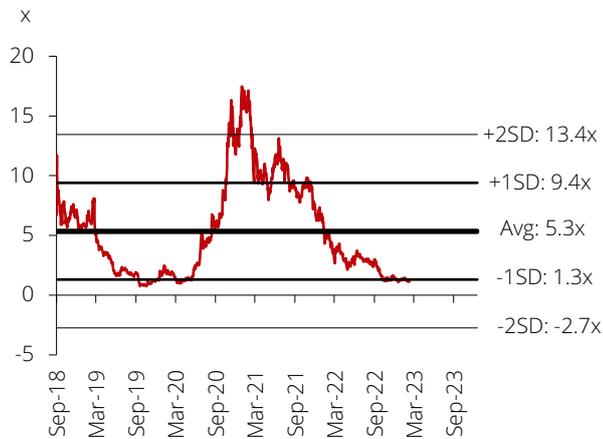
Nexteer - PE chart



Nexteer - PB chart



NIO - PS chart



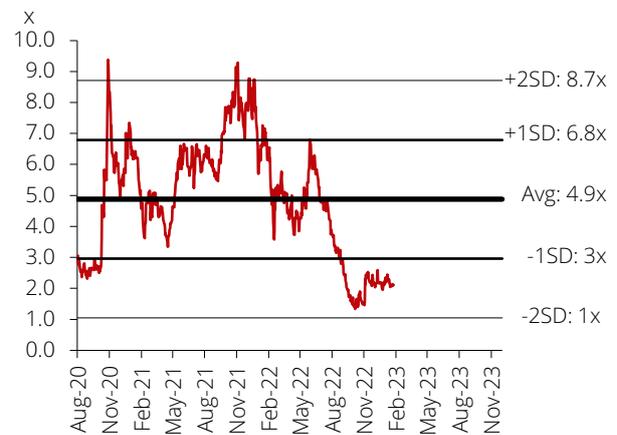
NIO - PB chart



XPENG - PS chart



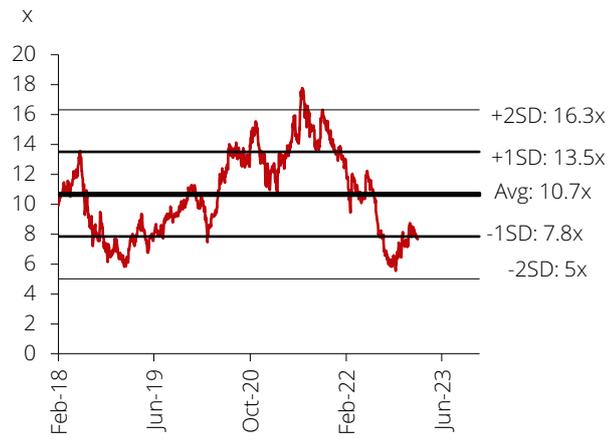
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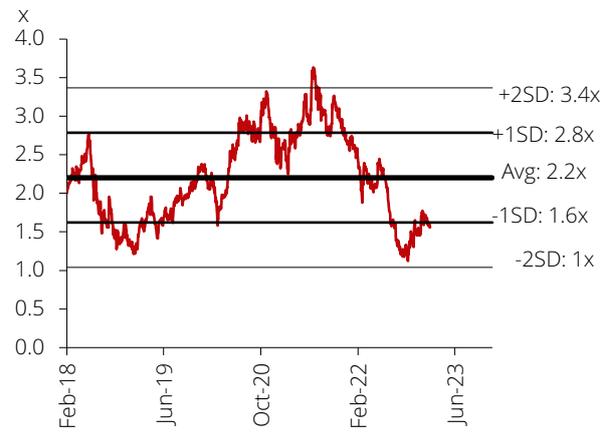
Source: Thomson Reuters, DBS HK

China Auto Sector

Zhongsheng - PE chart



Zhongsheng - PB chart



Source: Thomson Reuters, DBS HK

## Peers comparison table (Auto Parts)

Company Name	Code	Currency	Price Local\$	Mkt Cap US\$m	Fiscal Yr	PE		Yield		P/Bk		EV/EBITDA		ROE	
						22F x	23F x	22F %	23F %	22F x	23F x	22F x	23F x	22F %	23F %
<b>Hong Kong</b>															
Fuyao Glass Industry Gp. Co.'H'	3606	HK	HKD 36.30	13,732	Dec	17.3	16.4	3.5	3.7	2.9	2.7	10.1	9.0	17.5	17.6
Minth Group*	425	HK	HKD 20.95	3,076	Dec	13.5	10.4	3.0	3.8	1.2	1.2	9.7	7.9	9.4	11.5
Nexteer*	1316	HK	HKD 5.33	1,705	Dec	13.4	7.8	1.5	2.6	0.8	0.8	2.9	2.0	6.3	10.2
Weichai Power 'H'	2338	HK	HKD 12.58	15,767	Dec	20.2	13.8	1.4	2.1	1.3	1.2	5.0	3.8	6.2	7.9
Xinyi Glass Holdings	868	HK	HKD 16.48	8,644	Dec	13.5	11.2	3.9	4.4	1.8	1.7	8.6	7.7	14.9	16.3
<b>Average</b>						<b>15.6</b>	<b>11.9</b>	<b>2.7</b>	<b>3.3</b>	<b>1.6</b>	<b>1.5</b>	<b>7.3</b>	<b>6.0</b>	<b>10.9</b>	<b>12.7</b>
<b>China</b>															
Fangda Special Stl.Tech. 'A'	600507	CH	CNY 6.40	2,169	Dec	9.4	10.0	11.6	10.2	1.6	1.6	n.a.	n.a.	18.2	17.4
Fuyao Glss.Ind.Group 'A'	600660	CH	CNY 37.52	13,732	Dec	19.8	18.8	2.9	3.2	3.4	3.2	14.4	12.5	17.3	17.5
Huayu Automotive Sys.'A'	600741	CH	CNY 19.31	8,849	Dec	8.9	8.1	4.6	5.0	1.1	1.0	2.9	2.6	12.9	12.9
Jiangsu Pac.Precn.Frgg. 'A'	300258	CH	CNY 12.17	852	Dec	23.9	18.1	1.4	1.8	1.8	1.6	11.9	9.7	7.4	9.1
Ningbo Huaxiang Elt.'A'	002048	CH	CNY 15.89	1,880	Dec	11.4	9.5	3.5	4.2	1.2	1.0	5.0	4.3	10.3	11.2
Weifu High Tech.Gp.'B'	200581	CH	HKD 15.39	1,978	Dec	5.1	4.8	10.7	11.6	0.7	0.6	5.5	5.1	13.3	13.5
Zhejiang Wanliyang Tnsm. 'A'	002434	CH	CNY 9.87	1,883	Dec	32.9	25.3	n.a.	n.a.	2.3	2.1	n.a.	n.a.	n.a.	n.a.
Weifu High Tech.Gp.'A'	000581	CH	CNY 23.90	3,502	Dec	11.8	10.5	5.3	5.5	1.2	1.1	6.7	6.1	11.3	11.8
Zhejiang Yinlun Mch.'A'	002126	CH	CNY 15.53	1,788	Dec	33.9	22.2	0.9	1.3	2.9	2.6	15.7	11.9	8.2	11.0
Changzhou Xingyu Autv. Ltg.'A'	601799	CH	CNY 143.00	5,938	Dec	34.9	26.3	0.9	1.1	4.7	4.1	23.3	18.0	13.6	15.8
<b>Average</b>						<b>22.4</b>	<b>17.6</b>	<b>4.0</b>	<b>4.2</b>	<b>2.1</b>	<b>1.9</b>	<b>12.1</b>	<b>9.8</b>	<b>11.3</b>	<b>12.2</b>

# FY22: FY23; FY23: FY24

Source: Thomson Reuters, \*DBS HK

China Auto Sector

Peers comparison table (Automakers)

Company Name	Code	Currency	Price Local\$	Mkt Cap US\$m	Fiscal Yr	PE 22F x	PE 23F x	Yield 22F %	Yield 23F %	P/Bk 22F x	P/Bk 23F x	EV/EBITDA 22F x	EV/EBITDA 23F x	ROE 22F %	ROE 23F %	
<b>Hong Kong</b>																
Guangzhou Automobile 'H'*	2238	HK	HKD	5.41	15,351	Dec	5.0	4.2	6.0	7.1	0.5	0.5	3.2	2.9	10.4	11.4
Sinotruk (Hong Kong)	3808	HK	HKD	13.1	4,666	Dec	12.5	8.4	3.0	4.4	0.8	0.8	3.7	2.6	6.5	8.8
Dongfeng Motor Gp.'H'*	489	HK	HKD	4.28	4,742	Dec	3.0	2.7	10.1	11.2	0.2	0.2	0.2	0.4	7.2	7.6
Great Wall Motor 'H'*	2333	HK	HKD	12.06	36,076	Dec	11.0	8.4	4.6	5.9	1.5	1.3	6.1	5.0	13.8	16.3
BYD 'H'*	1211	HK	HKD	224.8	106,811	Dec	34.8	26.0	0.3	0.4	5.2	4.4	15.6	11.6	16.0	18.2
Geely Automobile Hdg.*	175	HK	HKD	11.38	14,763	Dec	19.6	14.0	1.0	1.5	1.4	1.3	7.5	6.2	7.5	9.8
BAIC Motor 'H'*	1958	HK	HKD	2.31	2,388	Dec	4.2	3.8	7.1	7.9	0.2	0.3	0.5	0.3	7.1	7.6
<b>Average^</b>							<b>8.3</b>	<b>6.3</b>	<b>6.1</b>	<b>6.0</b>	<b>0.7</b>	<b>0.7</b>	<b>3.2</b>	<b>3.3</b>	<b>9.5</b>	<b>11.0</b>
<b>China</b>																
Saic Motor 'A'	600104	CH	CNY	15.13	27,029	Dec	9.0	8.0	3.9	4.7	0.6	0.6	5.5	4.9	7.0	7.3
Faw Jiefang Group 'A'	000800	CH	CNY	8.72	6,203	Dec	33.2	14.7	1.8	3.8	1.6	1.5	11.7	5.8	4.2	9.7
CQ Changan Auto 'A'*	000625	CH	CNY	13.68	20,754	Dec	n.a.	n.a.	0.0	0.0	n.a.	n.a.	0.0	0.0	0.0	0.0
CQ Changan Auto 'B'	200625	CH	HKD	3.98	5,094	Dec	4.2	4.0	8.9	9.5	0.5	0.5	5.1	4.9	12.7	11.6
Anhui Jianghuai Auto 'A'	600418	CH	CNY	16.97	5,667	Dec	n.a.	117.0	0.2	0.1	2.4	2.3	114.0	18.6	(1.0)	2.5
Yutong Bus 'A'	600066	CH	CNY	9.93	3,362	Dec	54.3	27.4	1.0	1.8	1.7	1.6	11.0	7.8	3.0	6.5
Great Wall Motor 'A'	601633	CH	CNY	34.31	36,076	Dec	35.5	27.3	1.4	1.8	4.7	4.3	21.2	16.7	13.8	16.3
Guangzhou Auto 'A'*	601238	CH	CNY	11.69	15,351	Dec	12.3	10.4	2.4	2.9	1.2	1.1	7.5	6.6	10.4	11.4
BYD 'A'*	002594	CH	CNY	270.42	106,811	Dec	47.6	35.6	0.2	0.3	7.1	6.0	21.2	15.7	16.0	18.2
<b>Average</b>							<b>28.0</b>	<b>30.6</b>	<b>2.2</b>	<b>2.8</b>	<b>2.5</b>	<b>2.2</b>	<b>21.9</b>	<b>9.0</b>	<b>7.4</b>	<b>9.3</b>

^ Exclude outlier

# FY22: FY23; FY23: FY24

Source: Thomson Reuters, \*DBS HK

Peers comparison table (Auto Dealers)

Company Name	Code	Currency	Price Local\$	Mkt Cap US\$m	Fiscal Yr	PE 22F x	PE 23F x	Yield 22F %	Yield 23F %	P/Bk 22F x	P/Bk 23F x	EV/EBITDA 22F x	EV/EBITDA 23F x	ROE 22F %	ROE 23F %	
Zhongsheng*	881	HK	HKD	41.45	12,698	Dec	9.3	7.5	2.2	2.7	1.8	1.5	5.5	4.1	21.5	22.2
China Zhengtong	1728	HK	HKD	0.61	213	Dec	14.1	5.5	0.0	0.0	2.1	1.4	23.8	9.8	17.8	30.9
Grand Baoxin Auto	1293	HK	HKD	0.385	139	Dec	3.4	1.6	0.0	0.0	0.1	0.1	1.8	1.8	0.1	6.3
China Yongda Auto*	3669	HK	HKD	6.51	1,632	Dec	4.4	3.7	8.6	10.4	0.7	0.6	3.2	2.6	17.5	18.8
China Meidong Auto	1268	HK	HKD	18.28	3,135	Dec	21.6	14.0	3.3	4.2	4.5	3.6	10.0	6.9	15.8	19.0
China Harmony	3836	HK	HKD	1.03	203	Dec	n.a.	1.9	0.0	17.9	0.2	0.2	(63.1)	2.9	(6.6)	10.3
<b>Average</b>							<b>10.6</b>	<b>5.7</b>	<b>2.3</b>	<b>5.9</b>	<b>1.6</b>	<b>1.2</b>	<b>(3.1)</b>	<b>4.7</b>	<b>11.0</b>	<b>17.9</b>
Tan Chong Motor Holdings	TCM	MK	MYR	1.14	173	Dec	n.a.	35.6	2.3	2.0	0.3	0.3	n.a.	n.a.	1.0	1.0
Wuchan Zhongda 'A'	600704	CH	CNY	4.85	3,662	Dec	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Offcn Education Tech 'A'	002607	CH	CNY	5.79	5,191	Dec	n.a.	56.2	0.0	0.8	29.1	19.2	(90.8)	29.3	(57.3)	38.4
Chd.Autv.Ssgp.'A'	600297	CH	CNY	2.25	2,653	Dec	13.0	12.7	0.0	0.0	0.4	0.4	6.6	5.1	(1.2)	3.1
Wuxi Coml.Mansion 'A'	600327	CH	CNY	4.67	601	Dec	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
<b>Average</b>							<b>13.0</b>	<b>34.9</b>	<b>0.8</b>	<b>1.0</b>	<b>9.9</b>	<b>6.6</b>	<b>(42.1)</b>	<b>17.2</b>	<b>(19.2)</b>	<b>14.2</b>

# FY22: FY23; FY23: FY24

Source: Thomson Reuters, \*DBS HK

Peers comparison table (NEV)

Company Name	Code	Price		Mkt	PE	PE	P/S	P/S	P/Bk	P/Bk	EV/EBITDA		ROE	ROE
		Local\$	US\$m	Cap	23F	24F	23F	24F	23F	24F	23F	24F	23F	24F
					x	x	x	x	x	x	x	x	%	%
BYD 'H'*	1211 HK	224.8	102,735		26.0	19.6	1.0	0.8	4.4	3.6	11.6	8.8	18.2	20.2
BYD 'A'*	002594 CH	270.42	102,735		35.6	26.9	1.4	1.1	6.0	5.0	15.7	11.9	18.2	20.2
NIO*	9866 HK	77.9	17,862		n.a.	n.a.	1.2	0.9	6.1	6.7	n.a.	36.5	(32.9)	(9.1)
NIO ADR 1:1*	NIO US	10.03	18,041		n.a.	n.a.	1.3	0.9	6.2	6.8	n.a.	37.6	(32.9)	(9.1)
NIO	NIO SP	10.01	18,005		n.a.	n.a.	1.3	1.0	6.3	6.5	n.a.	49.5	(41.3)	(5.9)
Tesla	TSLA US	197.37	624,499		49.4	35.9	6.1	4.7	10.8	8.4	26.4	19.0	24.4	25.9
Xpeng ADR 1:2*	XPEV US	9.22	6,347		n.a.	n.a.	0.7	0.5	2.0	2.3	n.a.	n.a.	(21.8)	(11.6)
Xpeng*	9868 HK	36.2	6,353		n.a.	n.a.	0.7	0.5	2.0	2.3	n.a.	n.a.	(21.8)	(11.6)
Li Auto ADR 2 1:2*	LI US	24.3	19,416		146.6	38.6	1.5	1.0	4.3	3.9	27.9	11.9	3.0	10.6
Li Auto*	2015 HK	93.4	20,583		143.6	37.8	1.6	1.0	4.2	3.8	49.8	18.6	3.0	10.6
Rivian Automotive	RIVN US	19.08	17,575		n.a.	n.a.	3.4	1.6	2.1	2.4	n.a.	n.a.	(53.5)	(42.6)
Lucid Group	LCID US	9.9	16,636		n.a.	n.a.	6.5	3.5	8.0	6.4	n.a.	n.a.	(80.1)	(59.4)
<b>Average</b>					<b>37.7</b>	<b>27.8</b>	<b>2.2</b>	<b>1.5</b>	<b>5.2</b>	<b>4.8</b>	<b>26.3</b>	<b>24.2</b>	<b>(18.1)</b>	<b>(5.2)</b>

# FY23: FY24; FY24: FY25

Source: Thomson Reuters, \*DBS HK

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**BUY** (>15% total return over the next 12 months for small caps, >10% for large caps)

**HOLD** (-10% to +15% total return over the next 12 months for small caps, -10% to +10% for large caps)

**FULLY VALUED** (negative total return, i.e., > -10% over the next 12 months)

**SELL** (negative total return of > -20% over the next 3 months, with identifiable share price catalysts within this time frame)

\*Share price appreciation + dividends

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