

SECTOR UPDATE

Automobile – China

Weekly: PEV Sales Up 22-23% yoy/4-6% mom In September, In Line

China's PEV wholesale shipment and retail sales grew 22-23% yoy and 4-6% mom to record highs of 831,000/743,000 units respectively, in line with estimates. ICE-car wholesale shipment spiked 12% mom in Sep 23, outpacing PEV, as OEM pushed inventories to dealers at big promotional discounts to attain 3Q23 sales targets. EV companies' insurance registrations fell 30% wow in the first week of October due to the Golden Week. Maintain UNDERWEIGHT. Top picks: BYD, CATL and Li Auto.

WHAT'S NEW

- **CPCA: China's PV wholesale shipment and retail sales volume up 9%/6% mom in September...** According to China Passenger Car Association (CPCA), China passenger vehicle (PV) wholesale shipment grew 6% yoy and 9% mom to 24.42m units, while PV retail sales volume jumped 5.5% yoy and 5.6% mom to 20.28m units.
- **...while PEV wholesale shipment and retail sales volume grew 23%/22% yoy and 4%/6% mom to 831,000/743,000 units respectively, roughly in line with estimates.** According to CPCA, the share of passenger electric vehicle (PEV) in China's PV wholesale shipment and retail sales volume stood at 34.0% (+4.7ppt yoy/-1.7ppt mom) and 36.6% (+4.9ppt yoy/+0.3ppt mom) in Sep 23. In 9M23, wholesale shipment and retail sales volume of PEV in China respectively grew 37%/34% yoy to 5.916m units/5.17m units.
- **ICE-car OEMs pushed inventories to dealers again in the last week of September to meet their 3Q23 sales targets.** According to CPCA, wholesale shipment of ICE-cars spiked 12% mom to 1.611m units in Sep 23, while retail sales volume only grew 5% mom to 1.285m units. On a weekly basis, wholesale shipment and retail sales volume of ICE-cars respectively surged by 161%/109% wow to 745,000 units/537,000 units during 25-30 Sep 23. Dealers of ICE-cars offered deep discounts (eg 25-30% for Volkswagen) in Sep 23 to clear excessive inventories in the last week of September, taking back some market share from PEVs. As such, PEV market share pulled back from the record high of 43.1% in the third week of September to 30.4% in the last week of September.
- **CAAM: China's EV sales volume grew 28% yoy and 7% mom to a record high of 904,000 units in Sep 23, in line with estimate.** According to China Association of Automobile Manufacturers (CAAM), market share of electric vehicles (EV), including both PV and commercial vehicles (CV), reached 31.6% in Sep 23, up 4.5ppt yoy but down 1.1ppt mom. China's 9M23 EV wholesale shipment grew 38% yoy to 6.275m units, on track to meet our full-year 2023 forecast of 9.0m units (+30% yoy).

PEER COMPARISON

Company	Ticker	Rec	Price @ 12 Oct 23 (lcy)	Target Price (lcy)	Upside/(Downside) to TP (%)	Market Cap (US\$m)	PE 2023F (x)	2024F (x)	P/B 2023F (x)	2024F (x)	ROE (%)	Net Gearing (Cash) (%)
BYD	1211 HK	BUY	248.60	590.00	137.3	92,346	27.6	17.5	5.0	4.0	19.6	(26.7)
Geely Automobile	175 HK	SELL	9.45	6.50	(31.2)	12,103	22.4	18.8	1.1	1.0	5.0	(26.9)
Great Wall Motors	2333 HK	SELL	9.73	5.20	(46.6)	10,902	21.4	21.7	1.1	1.1	5.3	(7.7)
Guangzhou Auto	2238 HK	SELL	3.86	3.20	(17.1)	5,125	7.9	9.5	0.3	0.3	4.1	(14.9)
Li Auto Inc	2015 HK	BUY	138.90	312.00	124.6	37,017	30.3	18.0	4.9	3.9	17.7	(103.0)
XPeng	9868 HK	SELL	67.10	18.00	(73.2)	15,862	Loss	Loss	4.4	6.6	(43.3)	(58.3)
Weichai Power	2338 HK	BUY	11.06	16.00	44.7	12,215	10.3	8.9	1.6	1.4	11.0	(51.1)
Fuyao Glass	3606 HK	BUY	37.65	42.00	11.6	12,561	18.0	15.5	2.9	2.7	16.6	(18.3)
Desay SV	002920 CH	HOLD	128.59	135.00	5.0	9,783	48.8	37.0	9.4	7.8	20.8	0.5
Nexteer	1316 HK	SELL	4.50	2.70	(40.0)	1,444	13.7	14.9	0.7	0.7	5.4	(10.1)
Minth	425 HK	BUY	20.25	33.00	63.0	3,008	10.9	9.0	1.2	1.1	11.0	17.9
Ningbo Xusheng	603305 CH	BUY	23.42	36.00	53.7	2,139	25.2	20.2	3.4	3.0	13.3	(9.9)
CATL	300750 CH	BUY	195.94	410.00	109.2	65,378	20.2	13.1	4.3	3.3	21.9	(46.1)
EVE Energy	300014 CH	BUY	46.90	92.00	96.2	13,108	21.1	15.6	2.8	2.4	10.5	37.2
Ganfeng Lithium	1772 HK	HOLD	34.00	33.00	(2.9)	8,758	6.7	8.8	1.2	1.1	14.8	6.5
GEM	002340 CH	SELL	6.23	4.00	(35.8)	4,348	66.3	77.3	1.7	1.7	2.6	53.0
Tinci Materials	002709 CH	SELL	28.22	20.00	(29.1)	7,391	20.3	23.1	4.5	4.3	21.9	2.3
Zhongsheng Group	881 HK	SELL	20.85	14.00	(32.9)	6,428	8.0	9.0	1.0	0.9	13.0	38.8
Yadea Group	1585 HK	BUY	14.58	20.00	37.2	5,583	15.8	13.4	5.0	4.1	34.7	(139.1)

Source: Bloomberg, UOB Kay Hian

UNDERWEIGHT

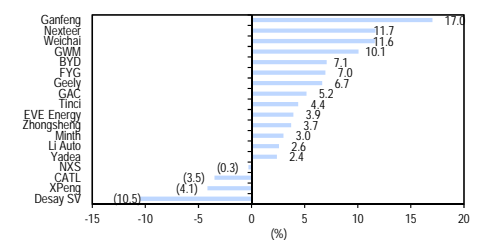
(Maintained)

TOP PICKS

Company	Ticker	Rec	Share Price (lcy)	Target Price (lcy)
BYD	1211 HK	BUY	248.60	590.00
Li Auto	2015 HK	BUY	138.90	312.00
CATL	300750 CH	BUY	195.94	410.00

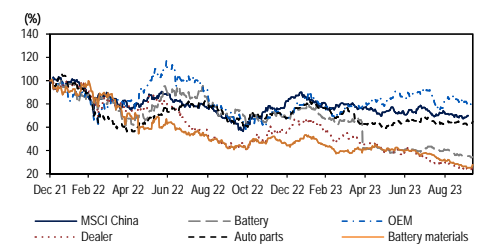
Source: UOB Kay Hian

WEEKLY STOCK PERFORMANCE



Source: Bloomberg

RELATIVE PERFORMANCE OF AUTO STOCKS



Source: Bloomberg

ANALYST(S)

Ken Lee
+852 2236 6760
ken.lee@uobkayhian.com.hk

Bella Lu
+86 21 5404 7225 ext.810
bellalu@uobkayhian.com

• **EV companies generally saw a drop in insurance registrations in the first week of October, due to the National Day holiday.** The insurance registrations (a proxy to retail sales volume) of a dozen of major EV companies in China plummeted by an average of 30% w/w in the first week of October (2-8 Oct 23) (ranging from -9% to -86%).

• **BYD remained the largest player with insurance registrations for 51,400 units (+12% mom/-18% w/w).** Taking into account Denza, BYD's insurance registrations grew 9% mom and plummeted by 20% w/w to 52,700 units during the period. We keep our estimates on BYD's 2023-25 net profit forecasts and EPS estimates at Rmb23.81b/Rmb37.57b/Rmb53.36b and Rmb8.18/Rmb12.93/Rmb18.37 respectively, based on EV sales volume estimates of 3.0m units/4.0m units/5.2m units respectively.

• **Li Auto's insurance registrations only dropped 19% mom and 9% w/w during 2-8 Oct 23, outperforming the industry average.** Though Aito received 50,000 units in orders for its new extended range electric vehicle (EREV) model M7, demand for Li Auto has not been impacted much. We maintain our 2023-25 net profit forecasts and EPS estimates for Li Auto at Rmb8.70b/Rmb14.63b/Rmb21.38b and Rmb4.17/Rmb7.02/Rmb10.26 respectively.

• **XPeng staged a 48% mom and 71% w/w plunge in insurance registrations to 1,300 units during 2-8 Oct 23.** We remain pessimistic on XPeng's earnings outlook, based on the negative gross margin and aggressive price cuts. Maintain 2023-25 net loss estimates at Rmb13.14b/Rmb7.85b/Rmb6.17b respectively, based on deliveries of 140,000/200,000/230,000 units.

• **Tesla's insurance registrations slumped 91% mom and 86% w/w to 1,000 units in the period,** due to production line revamp for the launch of the new Model 3. The production of the old Model 3 has ceased, while it takes time for the production of the new Model 3 to ramp up. We expect Tesla's China sales to recover in the next few weeks with higher production of the new Model 3.

• **We keep our estimates on China's 2023 PV sales and passenger EV sales at 23.8m units (+1% yoy) and 8.5m units (+30% yoy) respectively, implying 36% EV penetration.** We expect China's EV sales to be driven by the country's supportive policies, plug-in hybrid electric vehicles (PHEV) continuously taking market share from ICE-cars, and burgeoning exports. Our estimated 8.5m units of China's 2023 passenger EV wholesale shipment comprises 7.5m units of domestic sales and 1m units of exports.

• **CATL and other Chinese EV battery manufacturers took market share globally in 8M23.** According to data disclosed by SNE Research on 11 Oct 23, global shipment of EV battery grew by 48.9% yoy to 429GWh in 8M23, exceeding the institute's previous forecast of 335GWh (+23.6% yoy) for 2023. CATL and other Chinese EV battery manufacturers like BYD and EVE Energy gained market share. CATL remained the largest EV battery manufacturer worldwide with shipment growing 54.4% yoy to 158.3GWh in 8M23, vs our 2023 forecast of 350GWh. CATL's market share gain was driven by the European market where the company's shipment doubled from last year, but in China, CATL has seen a temporary setback in September.

• **CATL's market share fell to below 40% due to the production halt of Tesla Model 3.** According to data from China Power Battery Innovation Alliance, EV battery installation volume in China grew 15.1% yoy and 4.3% mom to 36.4GWh in Sep 23, and jumped 32% yoy to 255.7GWh in 9M23, in tandem with growth in EV production volume. CATL's installation volume in China unexpectedly dropped 5.1% yoy and 7.1% mom to 14.35GWh in Sep 23. In 9M23, the number still grew 18.8% yoy to 109.3GWh. CATL's market share in China plummeted 8.4ppt yoy and 4.8ppt mom to 39.4% in Sep 23, below 40% for the first time in three years. In 9M23, CATL's market share in China also declined 4.7ppt yoy to 42.8%.

CATL's market share loss in China in Sep 23 can be attributed to the production suspension of Model 3 at Tesla's Shanghai Gigafactory due to the revamp of the production line for the new Model 3. Meanwhile, competitors are growing fast. For example, BYD's EV battery installation volume grew 38.5% yoy and 4.5% mom to 9.83GWh in Sep 23, and rose 71.9% yoy to 74.0GWh in 9M23. BYD's market share in China increased 4.6ppt/6.7ppt yoy to

UBKHK'S FORECASTS ON CHINA AUTO SALES

(m units)	2022	2023F	yoy % chg
EV	6.9	9.0	30.9
- PV	6.5	8.5	30.0
- CV	0.3	0.5	48.4
ICE-car	20.0	18.6	(6.9)
- PV	17.0	15.3	(10.1)
- CV	3.0	3.3	11.4
Total auto	26.9	27.6	2.8
- PV	23.6	23.8	1.0
- CV	3.3	3.8	15.2
EV share in PV sales (%)	27.8	35.7	8.0
EV share in CV sales (%)	10.2	13.2	2.9
Overall	25.6	32.6	7.0

Source: CAAM, CPCA, UOB Kay Hian

CHINA'S MONTHLY VEHICLE SALES VOLUME

('000 units)	Sep 23	yoy % chg	mom % chg	9M23	yoy % chg
<i>Production volume</i>					
EV	879	16.4	4.3	6,315	33.9
ICE-car	1,971	2.8	13.8	14,749	(1.1)
Total	2,850	6.7	10.7	21,064	7.3
EV share (%)	30.8	2.6	(1.9)	30.0	6.0
<i>Wholesale shipment</i>					
EV	904	27.7	6.9	6,275	37.7
ICE-car	1,954	2.7	12.5	14,791	(0.7)
Total	2,858	9.5	10.7	21,066	8.2
EV share (%)	31.6	4.5	(1.7)	29.8	6.4

Source: CPCA

CHINA'S MONTHLY PV SALES (SEP 23)

('000 units)	Sep 23	yoy % chg	mom % chg	9M23	yoy % chg
<i>Wholesale shipment</i>					
PEV	831	23.3	4.0	5,916	36.6
ICE-car	1,611	(0.7)	12.0	11,893	(4.0)
Total	2,442	6.3	9.2	17,809	6.5
EV market share (%)	34.0	4.7	(1.7)	33.2	7.3
<i>Retail sales volume</i>					
PEV	743	21.6	6.4	5,170	33.6
ICE-car	1,285	(2.1)	5.2	10,080	(8.5)
Total	2,028	5.5	5.6	15,250	2.5
EV market share (%)	36.6	4.9	0.3	33.9	7.9

Source: CPCA

CHINA WEEKLY PV SALES VOLUME (SEP 23)

('000 units)	---- Retail sales ----			--- Wholesale shipment ---		
	Total	EV	ICE-car	Total	EV	ICE-car
1-10 Sep 23	439	172	267	460	172	288
11-17 Sep 23	365	141	224	467	174	293
18-24 Sep 23	452	195	257	534	249	285
25-30 Sep 23	772	235	537	981	236	745
yoy % chg	(4)	1	(6)	(7)	1	(9)
mom % chg	6	(8)	14	(3)	(19)	3
wow % chg	71	21	109	84	(5)	161

Source: CPCA

MONTHLY SALES BY OEM (SEP 23)

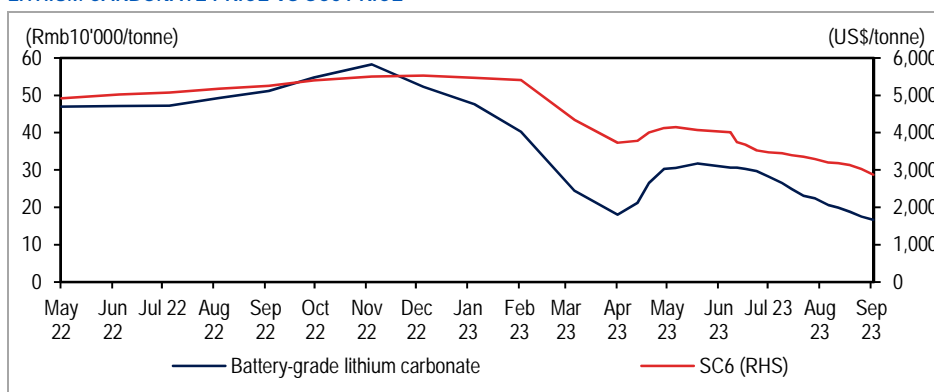
	Sep 23	yoy % chg	mom % chg	9M23	yoy % chg
BYD	287,454	56.9	4.7	2,079,638	77.1
GAC	243,599	2.7	23.8	1,792,463	(1.8)
- EV	57,973	70.4	17.1	393,745	92.2
- Aion	51,596	71.9	14.6	350,864	94.5
Geely	170,472	30.6	11.7	1,155,277	16.7
- EV	53,692	36.9	13.5	299,894	37.3
- Zeekr	12,053	45.6	(2.0)	79,028	100.2
GWM	121,632	29.9	6.6	863,871	7.7
Li Auto	36,060	212.7	3.3	244,225	181.0
XPeng	15,310	80.8	11.8	81,443	(17.4)
Total	447,125	49.3	5.0	3,133,874	68.0

Source: Respective companies

27%/28.9% in Sep 23/9M23 respectively. EVE Energy's EV battery installation volume also surged by 149% yoy and 51% mom to 1.84GWh and by 148% yoy to 11GWh in 9M23, on track to meet our full-year 2023 estimate of 30GWh. We expect CATL's battery installation volume to rebound from October when the production of Model 3 resumes. We maintain our 2023-25 net profit forecasts for CATL at Rmb42.57b/Rmb65.83b/Rmb93.16b, based on EV battery shipment of 350GWh/500GWh/680GWh and energy storage battery shipment of 80GWh/128GWh/192GWh respectively.

- Spodumene concentrate prices plunged by over 10% this week, while lithium carbonate prices remained flat.** Lithium carbonate prices in China have stabilised at Rmb167,000/tonne since 27 Sep 23, and it remained flat wow at the level this week. On a mom basis, lithium carbonate prices have declined by 16% over the last month. On the other hand, the CIF price of spodumene concentrate with about 6% lithium content (SC6) from Australia plummeted by 10.5% wow and 20% mom to US\$2,550/tonne. This translates into a spodumene concentrate cost of Rmb148,920/tonne. Taking into account the Rmb18,000-24,000/tonne processing cost, the total cost of lithium carbonate produced from the Australian SC6 stood at Rmb166,920-172,920/tonne, compared with the lithium carbonate price of Rmb167,000/tonne. This kind of lithium carbonate accounts for over half of China's total output of the compound. As such, for over half of lithium carbonate output in China, the lithium carbonate price has hit breakeven point, underscoring a bottoming out of lithium carbonate price unless there is a further decline in spodumene concentrate price.

LITHIUM CARBONATE PRICE VS SC6 PRICE



Source: UOB Kay Hian

ACTIONS

- Maintain UNDERWEIGHT on China's automobile sector, with a preference for the EV segment.** Based on the expected decline in China's ICE-car sales and the intensifying price war in the ICE-car market, we maintain UNDERWEIGHT on China's automobile sector. However, based on the expected faster EV sales CAGR of 30% in 2023-25, we still like the EV segment. Given the declines in battery material prices due to increasing supply, we prefer the leading midstream and downstream EV plays with strong capabilities in cost control.
- Our top BUYs include BYD (1211 HK/BUY/Target: HK\$590.00), CATL (300750 CH/BUY/Target: Rmb390.00) and Li Auto (2015 HK/BUY/Target: HK\$312.00).** Our BUY calls are in order of preference: BYD, CATL, Li Auto, Yadea, Fuyao Glass, Minth, Ningbo Xusheng, EVE Energy, Weichai Power.
- Maintain SELL on Geely (175 HK/SELL/Target: HK\$6.50), Great Wall Motor (2333 HK/SELL/Target: HK\$5.20), Guangzhou Auto (2238 HK/SELL/Target: HK\$3.20), Nexteer (1316 HK/SELL/Target: HK\$2.70), GEM (002340 CH/SELL/Target: Rmb4.00), Tinci Materials (002709 CH/SELL/Target: Rmb20.00) and Zhongsheng (881 HK/SELL/Target: HK\$14.00).**

WEEKLY INSURANCE REGISTRATIONS BY BRAND

	4-10 Sep	11-17 Sep	18-24 Sep	25 Sep-1 Oct	2-8 Oct	mom % chg	wow % chg
BYD	45.9	51.1	61.7	62.6	51.4	12.0	(17.9)
Wuling	7.5	8.0	8.5	10.9	12.1	61.3	11.0
Li Auto	8.5	9.1	9.1	7.6	6.9	(18.8)	(9.2)
Aion	8.2	9.8	11.1	10.7	6.6	(19.5)	(38.3)
Changan	3.7	4.1	4.1	n.a.	4.1	10.8	n.a.
VW	4.4	4.6	5.5	5.9	3.6	(18.2)	(39.0)
Geely	2.7	n.a.	n.a.	n.a.	3.5	29.6	n.a.
Deepal	2.9	3.2	4.0	n.a.	3.0	3.4	n.a.
Leapmotor	2.7	3.4	4.0	4.3	1.7	(37.0)	(60.5)
Zeekr	1.8	2.4	2.9	2.9	1.5	(16.7)	(48.3)
Nio	3.8	3.9	4.0	4.4	1.3	(65.8)	(70.5)
XPeng	2.5	3.6	3.6	4.5	1.3	(48.0)	(71.1)
Denza	2.5	2.5	3.0	2.9	1.3	(48.0)	(55.2)
Aito	n.a.	0.7	1.0	n.a.	1.3	n.a.	n.a.
Galaxy	n.a.	n.a.	n.a.	n.a.	1.8	n.a.	n.a.
Tesla	10.6	8.4	13.2	7.2	1.0	(90.6)	(86.1)
Neta	1.7	2.0	1.5	4.0	0.9	(47.1)	(77.5)

Source: chevipost.com, Dongchedi

GLOBAL EV BATTERY USAGE

	8M22 (GWh)	8M23 (GWh)	yoy chg (%)	Market share (%) 8M22	Market share (%) 8M23
1 CATL	102.5	158.3	54.4	35.6	36.9
2 BYD	36.4	68.1	87.1	12.6	15.9
3 LG Energy	38.4	60.9	58.5	13.3	14.2
4 Panasonic	22.3	30.6	37.3	7.7	7.1
5 SK On	18.6	21.7	16.5	6.5	5.1
6 CALB	11.9	20.0	69.0	4.1	4.7
7 Samsung SDI	13.3	17.6	32.4	4.6	4.1
8 EVE Energy	3.8	9.2	142.8	1.3	2.1
9 Gotion	8.4	9.1	7.7	2.9	2.1
10 Sunwoda	4.7	6.2	30.4	1.6	1.4
Others	27.8	27.3	(1.6)	9.6	6.4
Total	288.1	429.0	48.9	100.0	100.0

Source: SNE Research

CHINA EV BATTERY INSTALLATION VOLUME

	Sep 23 (GWh)	yoy chg (%)	mom chg (%)	9M23 (GWh)	yoy chg (%)
<u>Installation volume</u>					
1 CATL	14.35	(5.1)	(7.1)	109.3	18.8
2 BYD	9.83	38.5	4.5	74.0	71.9
3 CALB	3.66	87.7	8.3	22.8	71.0
4 EVE Energy	1.84	148.6	50.8	11.0	148.1
5 Gotion	1.47	7.3	18.5	10.0	7.1
Others		5.25	(1.9)	25.0	28.5
Total		36.40	15.1	4.3	255.7
<u>Market share (%)</u>					
1 CATL	39.4	(8.4)	(4.8)	42.8	(4.7)
2 BYD	27.0	4.6	0.0	28.9	6.7
3 CALB	10.1	3.9	0.4	8.9	2.0
4 EVE Energy	5.1	2.7	1.6	4.3	2.0
5 Gotion	4.0	(0.3)	0.5	3.9	(0.9)
Others	14.4	(2.5)	2.4	11.2	(5.1)
Total	100.0			100.0	

Source: China Power Battery Innovation Alliance

Disclosures/Disclaimers

This report is prepared by UOB Kay Hian Private Limited ("UOBKH"), which is a holder of a capital markets services licence and an exempt financial adviser in Singapore.

This report is provided for information only and is not an offer or a solicitation to deal in securities or to enter into any legal relations, nor an advice or a recommendation with respect to such securities.

This report is prepared for general circulation. It does not have regard to the specific investment objectives, financial situation and the particular needs of any recipient hereof. Advice should be sought from a financial adviser regarding the suitability of the investment product, taking into account the specific investment objectives, financial situation or particular needs of any person in receipt of the recommendation, before the person makes a commitment to purchase the investment product.

This report is confidential. This report may not be published, circulated, reproduced or distributed in whole or in part by any recipient of this report to any other person without the prior written consent of UOBKH. This report is not directed to or intended for distribution to or use by any person or any entity who is a citizen or resident of or located in any locality, state, country or any other jurisdiction as UOBKH may determine in its absolute discretion, where the distribution, publication, availability or use of this report would be contrary to applicable law or would subject UOBKH and its connected persons (as defined in the Financial Advisers Act, Chapter 110 of Singapore) to any registration, licensing or other requirements within such jurisdiction.

The information or views in the report ("Information") has been obtained or derived from sources believed by UOBKH to be reliable. However, UOBKH makes no representation as to the accuracy or completeness of such sources or the Information and UOBKH accepts no liability whatsoever for any loss or damage arising from the use of or reliance on the Information. UOBKH and its connected persons may have issued other reports expressing views different from the Information and all views expressed in all reports of UOBKH and its connected persons are subject to change without notice. UOBKH reserves the right to act upon or use the Information at any time, including before its publication herein.

Except as otherwise indicated below, (1) UOBKH, its connected persons and its officers, employees and representatives may, to the extent permitted by law, transact with, perform or provide broking, underwriting, corporate finance-related or other services for or solicit business from, the subject corporation(s) referred to in this report; (2) UOBKH, its connected persons and its officers, employees and representatives may also, to the extent permitted by law, transact with, perform or provide broking or other services for or solicit business from, other persons in respect of dealings in the securities referred to in this report or other investments related thereto; (3) the officers, employees and representatives of UOBKH may also serve on the board of directors or in trustee positions with the subject corporation(s) referred to in this report. (All of the foregoing is hereafter referred to as the "Subject Business"); and (4) UOBKH may otherwise have an interest (including a proprietary interest) in the subject corporation(s) referred to in this report.

As of the date of this report, no analyst responsible for any of the content in this report has any proprietary position or material interest in the securities of the corporation(s) which are referred to in the content they respectively author or are otherwise responsible for.

IMPORTANT DISCLOSURES FOR U.S. PERSONS

This research report was prepared by UOBKH, a company authorized, as noted above, to engage in securities activities in Singapore. UOBKH is not a registered broker-dealer in the United States and, therefore, is not subject to U.S. rules regarding the preparation of research reports and the independence of research analysts. This research report is provided for distribution by UOBKH (whether directly or through its US registered broker dealer affiliate named below) to "major U.S. institutional investors" in reliance on the exemption from registration provided by Rule 15a-6 of the U.S. Securities Exchange Act of 1934, as amended (the "Exchange Act"). All US persons that receive this document by way of distribution from or which they regard as being from UOBKH by their acceptance thereof represent and agree that they are a major institutional investor and understand the risks involved in executing transactions in securities.

Any U.S. recipient of this research report wishing to effect any transaction to buy or sell securities or related financial instruments based on the information provided in this research report should do so only through UOB Kay Hian (U.S.) Inc ("UOBKHUS"), a registered broker-dealer in the United States. Under no circumstances should any recipient of this research report effect any transaction to buy or sell securities or related financial instruments through UOBKH.

UOBKHUS accepts responsibility for the contents of this research report, subject to the terms set out below, to the extent that it is delivered to and intended to be received by a U.S. person other than a major U.S. institutional investor.

The analyst whose name appears in this research report is not registered or qualified as a research analyst with the Financial Industry Regulatory Authority ("FINRA") and may not be an associated person of UOBKHUS and, therefore, may not be subject to applicable restrictions under FINRA Rules on communications with a subject company, public appearances and trading securities held by a research analyst account.

Analyst Certification/Regulation AC

Each research analyst of UOBKH who produced this report hereby certifies that (1) the views expressed in this report accurately reflect his/her personal views about all of the subject corporation(s) and securities in this report; (2) the report was produced independently by him/her; (3) he/she does not carry out, whether for himself/herself or on behalf of UOBKH or any other person, any of the Subject Business involving any of the subject corporation(s) or securities referred to in this report; and (4) he/she has not received and will not receive any compensation that is directly or indirectly related or linked to the recommendations or views expressed in this report or to any sales, trading, dealing or corporate finance advisory services or transaction in respect of the securities in this report. However, the compensation received by each such research analyst is based upon various factors, including UOBKH's total revenues, a portion of which are generated from UOBKH's business of dealing in securities.

Reports are distributed in the respective countries by the respective entities and are subject to the additional restrictions listed in the following table.

General	This report is not intended for distribution, publication to or use by any person or entity who is a citizen or resident of or located in any country or jurisdiction where the distribution, publication or use of this report would be contrary to applicable law or regulation.
Hong Kong	This report is distributed in Hong Kong by UOB Kay Hian (Hong Kong) Limited ("UOBKHHK"), which is regulated by the Securities and Futures Commission of Hong Kong. Neither the analyst(s) preparing this report nor his associate, has trading and financial interest and relevant relationship specified under Para. 16.4 of Code of Conduct in the listed corporation covered in this report. UOBKHHK does not have financial interests and business relationship specified under Para. 16.5 of Code of Conduct with the listed corporation covered in this report. Where the report is distributed in Hong Kong and contains research analyses or reports from a foreign research house, please note: (i) recipients of the analyses or reports are to contact UOBKHHK (and not the relevant foreign research house) in Hong Kong in respect of any matters arising from, or in connection with, the analysis or report; and (ii) to the extent that the analyses or reports are delivered to and intended to be received by any person in Hong Kong who is not a professional investor, or institutional investor, UOBKHHK accepts legal responsibility for the contents of the analyses or reports only to the extent required by law.
Indonesia	This report is distributed in Indonesia by PT UOB Kay Hian Sekuritas, which is regulated by Financial Services Authority of Indonesia ("OJK"). Where the report is distributed in Indonesia and contains research analyses or reports from a foreign research house, please note recipients of the analyses or reports are to contact PT UOBKH (and not the relevant foreign research house) in Indonesia in respect of any matters arising from, or in connection with, the analysis or report.
Malaysia	Where the report is distributed in Malaysia and contains research analyses or reports from a foreign research house, the recipients of the analyses or reports are to contact UOBKHM (and not the relevant foreign research house) in Malaysia, at +603-21471988, in respect of any matters arising from, or in connection with, the analysis or report as UOBKHM is the registered person under CMSA to distribute any research analyses in Malaysia.
Singapore	This report is distributed in Singapore by UOB Kay Hian Private Limited ("UOBKH"), which is a holder of a capital markets services licence and an exempt financial adviser regulated by the Monetary Authority of Singapore. Where the report is distributed in Singapore and contains research analyses or reports from a foreign research house, please note: (i) recipients of the analyses or reports are to contact UOBKH (and not the relevant foreign research house) in Singapore in respect of any matters arising from, or in connection with, the analysis or report; and (ii) to the extent that the analyses or reports are delivered to and intended to be received by any person in Singapore who is not an accredited investor, expert investor or institutional investor, UOBKH accepts legal responsibility for the contents of the analyses or reports only to the extent required by law.
Thailand	This report is distributed in Thailand by UOB Kay Hian Securities (Thailand) Public Company Limited, which is regulated by the Securities and Exchange Commission of Thailand.
United Kingdom	This report is being distributed in the UK by UOB Kay Hian (U.K.) Limited, which is an authorised person in the meaning of the Financial Services and Markets Act and is regulated by The Financial Conduct Authority. Research distributed in the UK is intended only for institutional clients.
United States of America ('U.S.')	This report cannot be distributed into the U.S. or to any U.S. person or entity except in compliance with applicable U.S. laws and regulations. It is being distributed in the U.S. by UOB Kay Hian (US) Inc, which accepts responsibility for its contents. Any U.S. person or entity receiving this report and wishing to effect transactions in any securities referred to in the report should contact UOB Kay Hian (US) Inc. directly.

Copyright 2023, UOB Kay Hian Pte Ltd. All rights reserved.

<http://research.uobkayhian.com>

RCB Regn. No. 197000447W