

28 Dec 2021 03:36:08 ET | 34 pages

Harmony Auto (3836.HK)

Initiate at Buy: Unique Ultra-luxury/ Luxury Brand Mix, 21-23E NP CAGR at 11%; TP of HK\$8.8

CITI'S TAKE

We initiate at Buy and with a TP of HK\$8.8 on Harmony, a luxury auto dealership group with a focus in central China. The company has a unique ultra-luxury brand mix that includes Rolls-Royce, Bentley, Ferrari, Lamborghini and Maserati. We forecast a 10.7% NP CAGR in 21-23E.

Unique mix of ultra-luxury brands — With around 20-30% of its stores focused on ultra-luxury brands in the recent 3 years and decent exposure in top-tier cities (46% of current dealer stores are in 1st-tier and new 1st-tier cities as end of 1H21), we expect relatively high ASP and margins for Harmony in both new car sales and after-sales services. Also, Harmony's new car sales should be supported by strong product cycles for key brands BMW/Lexus (over 80% of new car sales volume in 1H21).

Positive outlook for after-sales business — We see strong earnings growth for after-sales services on a relatively young blended store age (over 50% of stores had opened in last 5 years as end-1H21) and the contribution from ultra-luxury brands.

Asset-light business model in NEV — Aligning with the auto sector's electrification trend, Harmony has a strategic investment in Dangdang, an asset-light franchise focused on NEV after-sales services. (Dangdang's store capex is only 10-15% that of traditional 4S stores.) We expect Dangdang to start to post positive FCF in 2023E.

Valuation — Our SoTP-derived TP for Harmony of HK\$8.8 is based on: 1) 15.5x 22E P/E (sector average) for new car sales to factor in a decent earnings outlook given the strong product cycle of the key brands (BMW/Lexus) as well as the company's unique ultra-luxury brand portfolio; and 2) 24x 22E P/E (sector average) for the after-sales segment on the contribution from ultra-luxury brands and steady SSSG as the blended store age gradually matures. Our valuation implies 16.3x blended 22E P/E, 1.3x 21-23E PEG (lower than Yongda's 1.5x) and 1.6x 22E P/B.

Downside risks — Key downside risks include 1) a weak macro which dampens overall purchasing power in China; 2) in a worst-case scenario, a full write-off of Byton (Baiteng) might incur a one-off cost of Rmb1.2bn for FY21, which could lead to FY21E NP loss (though such a one-off would not impact our earnings forecasts for FY22 and beyond); 3) a slower-than-expected network expansion pace; and 4) intensified competition could weigh on profitability, especially for new car sales.

Buy

Price (24 Dec 21 16:10)	HK\$4.58
Target price	HK\$8.80
Expected share price return	92.1%
Expected dividend yield	1.5%
Expected total return	93.7%
Market Cap	HK\$7,189M US\$922M

Price Performance

(RIC: 3836.HK, BB: 3836 HK)



Statistical Abstract

Year to	Net Profit	Diluted EPS	EPS growth	P/E	P/B	ROE	Yield
31 Dec	(RmbM)	(Rmb)	(%)	(x)	(x)	(%)	(%)
2019A	513	0.339	-23.4	10.9	0.8	7.3	1.9
2020A	411	0.266	-21.5	13.9	0.8	5.6	1.8
2021E	751	0.486	82.8	7.6	0.7	9.7	3.4
2022E	832	0.539	10.8	6.9	0.7	10.0	3.9
2023E	920	0.596	10.6	6.2	0.6	10.2	4.4

Source: Powered by dataCentral

Jeff Chung AC

+852-2501-2787
jeff.m.chung@citi.com

Brandy Wang

+852-2501-8457
brandy.wang@citi.com

Beatrice Lam

+852-2501-8455
beatrice.lam@citi.com

See Appendix A-1 for Analyst Certification, Important Disclosures and Research Analyst Affiliations.

Citi Research is a division of Citigroup Global Markets Inc. (the "Firm"), which does and seeks to do business with companies covered in its research reports. As a result, investors should be aware that the Firm may have a conflict of interest that could affect the objectivity of this report. Investors should consider this report as only a single factor in making their investment decision. Certain products (not inconsistent with the author's published research) are available only on Citi's portals.

3836.HK: Fiscal year end 31-Dec						Price: HK\$4.52; TP: HK\$8.80; Market Cap: HK\$7,095m; Recomm: Buy					
Profit & Loss (Rmbm)	2019	2020	2021E	2022E	2023E	Valuation ratios	2019	2020	2021E	2022E	2023E
Sales revenue	12,622	14,747	18,074	21,830	24,245	PE (x)	10.9	13.9	7.6	6.9	6.2
Cost of sales	-11,535	-13,448	-16,341	-19,807	-21,930	PB (x)	0.8	0.8	0.7	0.7	0.6
Gross profit	1,087	1,299	1,732	2,023	2,315	EV/EBITDA (x)	3.8	4.6	3.1	3.0	2.7
Gross Margin (%)	8.6	8.8	9.6	9.3	9.5	FCF yield (%)	-3.4	10.7	5.2	3.2	5.4
EBITDA (Adj)	961	939	1,349	1,384	1,521	Dividend yield (%)	1.9	1.8	3.4	3.9	4.4
EBITDA Margin (Adj) (%)	7.6	6.4	7.5	6.3	6.3	Payout ratio (%)	20	26	26	27	27
Depreciation	-154	-183	-198	-222	-251	ROE (%)	7.3	5.6	9.7	10.0	10.2
Amortisation	-4	-5	0	0	0	Cashflow (Rmbm)	2019	2020	2021E	2022E	2023E
EBIT (Adj)	272	411	697	665	754	EBITDA	961	939	1,349	1,384	1,521
EBIT Margin (Adj) (%)	2.2	2.8	3.9	3.0	3.1	Working capital	-603	-92	-108	-216	-134
Net interest	-110	-134	-134	-134	-134	Other	-122	-47	-400	-331	-350
Associates	-20	1	0	0	0	Operating cashflow	236	800	841	837	1,037
Non-Op/Except/Other Adj	531	340	454	497	516	Capex	-426	-192	-542	-655	-727
Pre-tax profit	673	617	1,016	1,028	1,136	Net acq/disposals	193	18	0	0	0
Tax	-147	-195	-254	-185	-204	Other	-40	-57	0	0	0
Extraord./Min.Int./Pref.div.	-13	-11	-11	-11	-11	Investing cashflow	-273	-230	-542	-655	-727
Reported net profit	513	411	751	832	920	Dividends paid	-159	-104	-196	-222	-250
Net Margin (%)	4.1	2.8	4.2	3.8	3.8	Financing cashflow	-26	-208	-196	-222	-250
Core NPAT	513	411	751	832	920	Net change in cash	214	342	102	-39	60
Per share data	2019	2020	2021E	2022E	2023E	Free cashflow to s/holders	-190	608	299	182	309
Reported EPS (Rmb)	0.339	0.266	0.486	0.539	0.596						
Core EPS (Rmb)	0.339	0.266	0.486	0.539	0.596						
DPS (Rmb)	0.069	0.068	0.127	0.144	0.162						
CFPS (Rmb)	0.156	0.518	0.545	0.542	0.672						
FCFPS (Rmb)	-0.126	0.394	0.193	0.118	0.200						
BVPS (Rmb)	4.803	4.872	5.210	5.605	6.039						
Wtd avg ord shares (m)	1,514	1,537	1,539	1,539	1,539						
Wtd avg diluted shares (m)	1,514	1,543	1,544	1,544	1,544						
Growth rates	2019	2020	2021E	2022E	2023E						
Sales revenue (%)	18.6	16.8	22.6	20.8	11.1						
EBIT (Adj) (%)	421.1	50.7	69.7	-4.5	13.3						
Core NPAT (%)	-24.9	-20.0	82.8	10.8	10.6						
Core EPS (%)	-23.4	-21.5	82.8	10.8	10.6						
Balance Sheet (Rmbm)	2019	2020	2021E	2022E	2023E						
Cash & cash equiv.	1,543	1,955	2,058	2,018	2,078						
Accounts receivables	135	155	155	155	155						
Inventory	1,262	1,094	994	1,201	1,333						
Net fixed & other tangibles	3,396	3,740	4,052	4,485	4,962						
Goodwill & intangibles	156	279	279	279	279						
Financial & other assets	4,931	5,129	4,923	5,230	5,423						
Total assets	11,423	12,352	12,461	13,369	14,231						
Accounts payable	116	264	264	264	264						
Short-term debt	2,494	2,604	2,604	2,604	2,604						
Long-term debt	0	0	0	0	0						
Provisions & other liab	1,490	1,936	1,491	1,788	1,980						
Total liabilities	4,099	4,805	4,359	4,657	4,849						
Shareholders' equity	7,270	7,488	8,043	8,653	9,323						
Minority interests	53	59	59	59	59						
Total equity	7,323	7,547	8,102	8,712	9,382						
Net debt (Adj)	951	649	547	586	526						
Net debt to equity (Adj) (%)	13.0	8.6	6.7	6.7	5.6						

For definitions of the items in this table, please click [here](#).

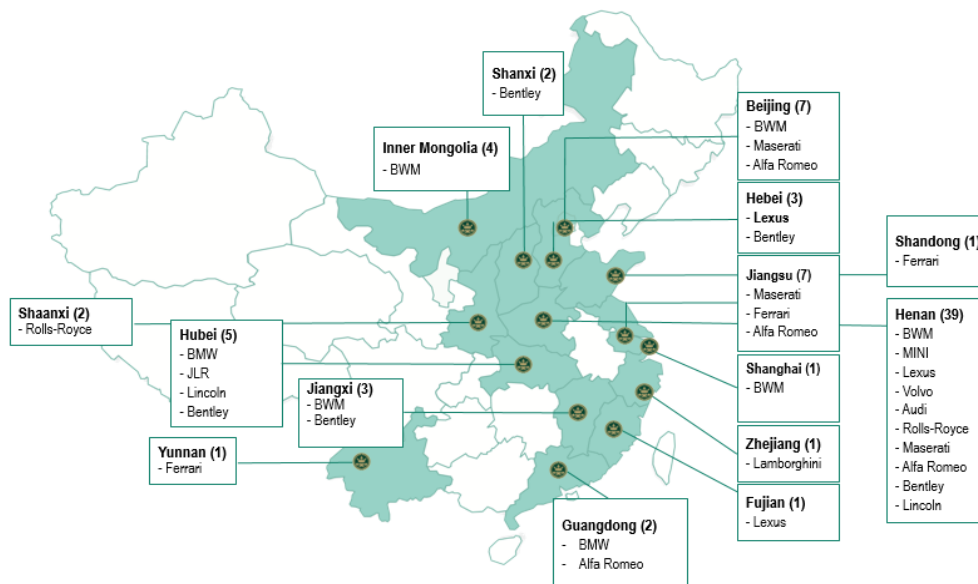
Contents

Harmony Auto: Riding on Ultra-luxury and Luxury Franchise/ After-sales Services/ NEV	4
Unique Ultra-luxury/Luxury Brand-mix and Exposure to Top-tier Cities	6
Strong Earnings Outlook for After-sales Services	8
Robust New Car Sales Along With Strong Key Brand Performance	9
Asset-light NEV Business Model and Other Business Segments	12
Key Financial Analysis	14
Rosy Performance Outlook: Net Profit on Uptrend	14
Expect Positive FCF going forward	14
Valuation	17
Risks	18
Sector Comps	19
Financials	20
Income Statement	20
Balance Sheet	21
Statement of Cash Flows	22
Company Background	23
Shareholding Structure	23
Management	24
History	24
Headquarters	25
Employees	25
Bull/Bear: Harmony Auto (3836.HK)	26
Harmony Auto	27
Company description	27
Investment strategy	27
Valuation	27
Risks	27
Appendix A-1	28

Harmony Auto: Riding on Ultra-luxury and Luxury Franchise/ After-sales Services/ NEV

Harmony Auto is a leading automotive dealer group in China, representing 14 luxury and ultra-luxury brands in 39 cities across the country. The company deeply engages with auto franchises on new car sales, after services, and financial leasing.

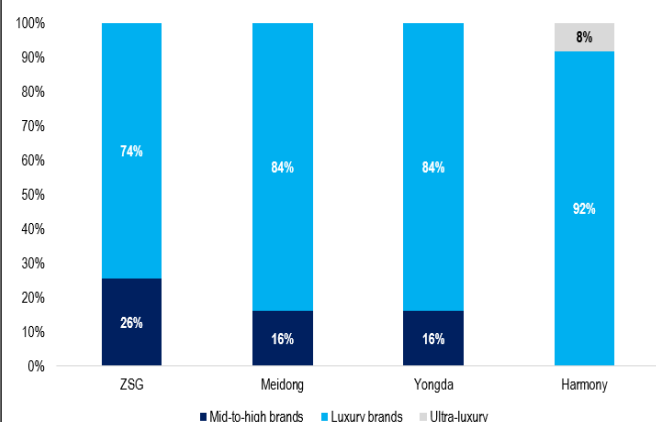
Figure 1. Harmony: Distribution Network



Source: Company Reports

Notably, Harmony offers a unique investment exposure to the growth potential of luxury car brands that are not offered by the brand-mix of its peers. Harmony works with 9 luxury brands including BMW, MINI, Audi, Volvo, Land Rover, Lexus, Jaguar, Lincoln, Alfa Romeo and 5 ultra-luxury brands (Rolls-Royce, Bentley, Ferrari, Lamborghini, and Maserati). As of June 30, 2021, the company had a total of 79 authorized dealership outlets in 39 cities across 15 provinces. As of end of FY20, ultra-luxury new car sales accounted for 8% of Harmony's total new car sales revenue.

Figure 2. Peer Comparison: Brand-mix (as of end-1H21)



Source: Citi Research, Company Reports

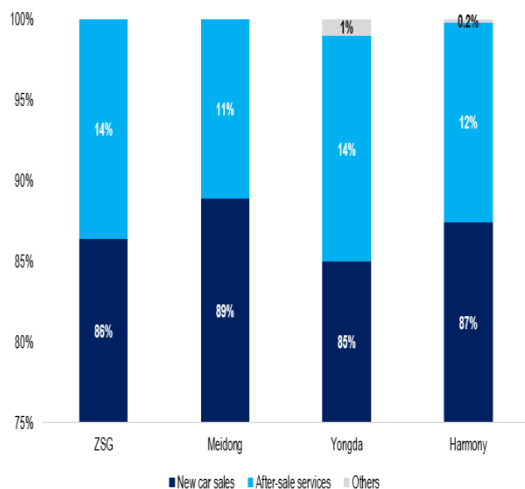
Figure 3. Harmony: Brand Mix



Source: Citi Research, Company Reports

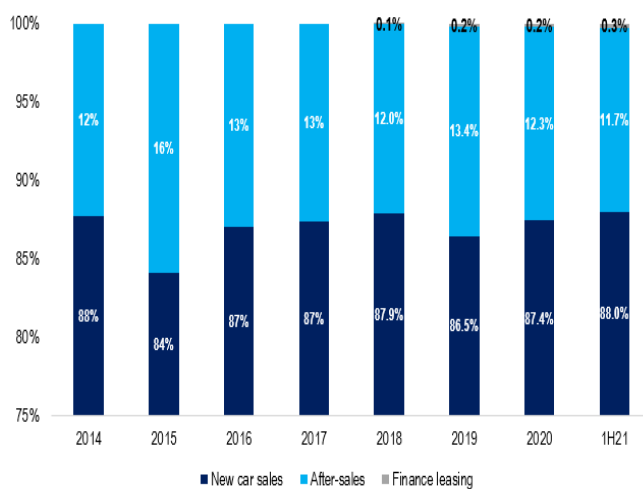
Currently, Harmony has three key business segments: 1) new car sales, 2) after-sales services, 3) finance leasing, with each representing 88.0%/11.7%/0.3% of total revenue in 1H21, respectively. Harmony enjoys a revenue split (87%/12% in FY20) for new car sales and after-sales services that is similar to those of its peers (ZSG/Meidong/Yongda).

Figure 4. Peer Comparison: Business Segment Mix (FY20)



Source: Citi Research, Company Reports

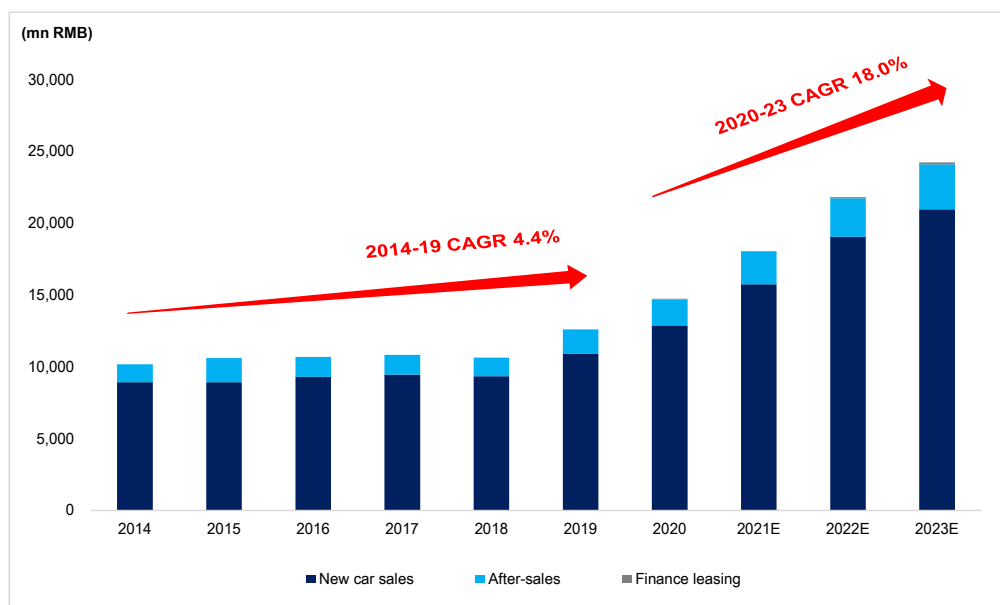
Figure 5. Harmony: Revenue Breakdown by Business Segment



Source: Citi Research, Company Data

Harmony posted 2014-2019 revenue CAGR at 4.4%. We estimate Harmony's 2020-2023E revenue CAGR to be 18.0%, supported by 1) its unique ultra-luxury/luxury brand-mix and exposure to top-tier cities; 2) a strong demand outlook for after-sales services; 3) robust new car sales along with strong key brand performance; and 4) its asset-light NEV business model and other business segments.

Figure 6. Harmony Auto: Revenue Breakdown (2014-2023E)

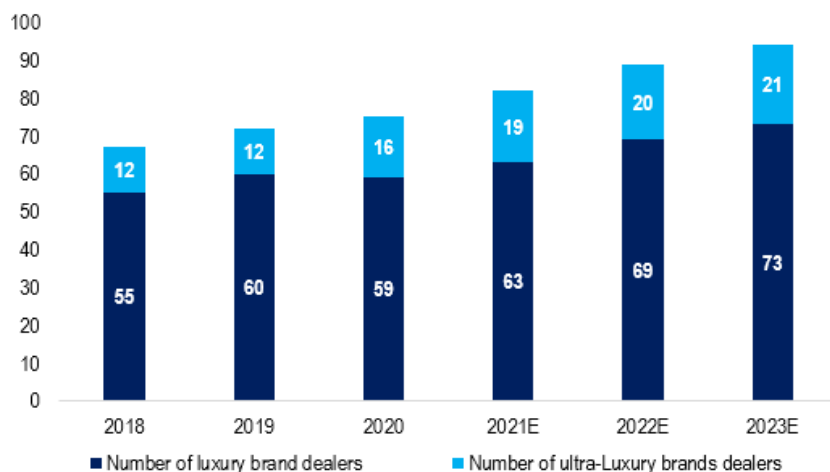


Source: Company Data, Citi Research Estimates

Unique Ultra-luxury/Luxury Brand-mix and Exposure to Top-tier Cities

We believe the success of Harmony's strategy lies in its unique brand-mix of ultra-luxury/luxury dealerships and decent geographical exposure. As of end of Jun-21, Harmony's ultra-luxury brand stores accounted for 29% of its total dealer stores, a gradual increase from 18% in 2018 and 21% in 2020. Going forward, we expect the company to maintain a stable store count for ultra-luxury brands, while being more aggressive in expanding key luxury brand stores. Thus, we expect the proportion of ultra-luxury stores to stabilize at around 22% of the total store count in 2022-23E.

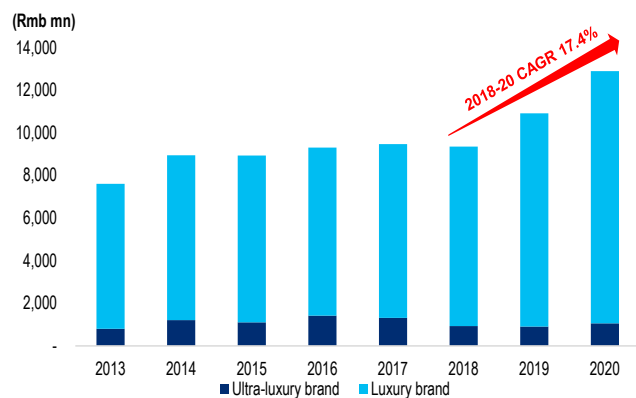
Figure 7. Harmony Auto: Dealership Store Breakdown



Source: Company Reports, Citi Research Estimates

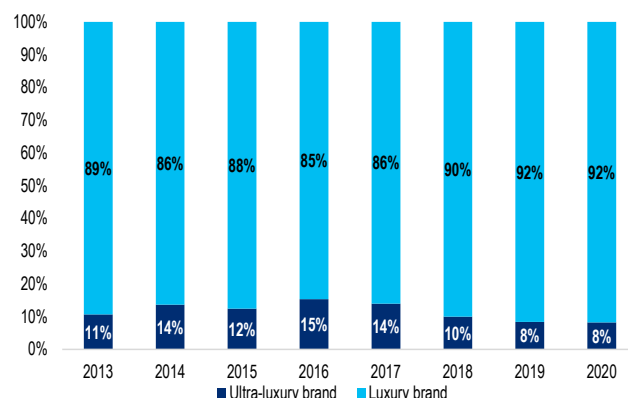
Since 2015, the contribution to new car sales revenue from ultra-luxury brands has gradually declined from 12% to 8% in 2020 on stronger growth by luxury brands. During 2018-20, ultra-luxury brand and luxury brand new car sales revenues grew at respective CAGRs of 6.6% and 18.5%, with total new car sales revenue CAGR at 17.4% over the period.

Figure 8. Harmony Auto: New Car Sales Revenue



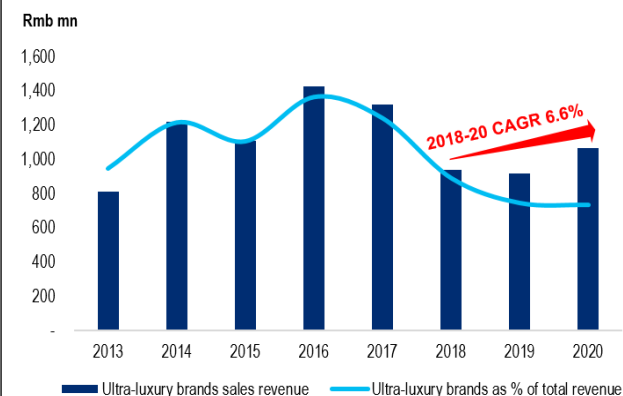
Source: Company Reports, Citi Research

Figure 9. Harmony Auto: New Car Sales Revenue Breakdown by Brand



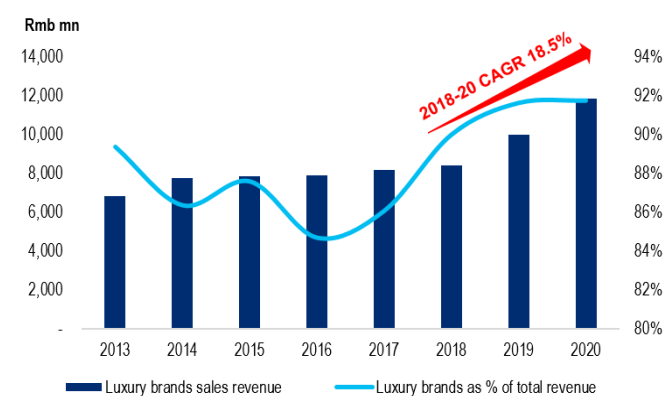
Source: Company Reports, Citi Research

Figure 10. New Car Sales Revenue: Ultra-luxury Brands



Source: Company Data, Citi Research

Figure 11. New Car Sales Revenue: Luxury Brands



Source: Company Data, Citi Research

Besides the contribution from ultra-luxury brands, we believe Harmony's new car sales revenue growth benefits from the company's comprehensive geographical exposure. As of end of Jun-21, Harmony had 79 dealer stores across China, spanning 1st- to 5th-tier cities, with around 46% of the stores in 1st-tier and new 1st-tier cities.

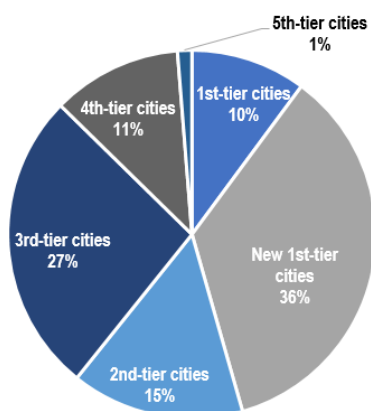
Figure 12. Dealer Store Breakdown: Peer Comparisons

	ZSG	Yongda	Meidong	Harmony
Bentley				6
Ferrari/Maserati				11
Aston Martin		1		
Porsche		20	7	
Mercedes-Benz	63	3		
Lexus	45	4	16	8
Audi	30	9	1	
BMW (incl. Mini)	25	76	26	34
Volvo	21	15		
JLR	16			
Toyota	93		12	
Nissan	35			
Honda	23			
Hyundai			1	
Sum	373	213	63	79

Source: Citi Research, Company Data

Harmony has a clear distribution strategy for its luxury and ultra-luxury brands. As of end of Jun-21, Harmony's ultra-luxury auto dealer stores had strong geographical exposure to top-tier cities in China, with 4%/61%/35% of its ultra-luxury brand outlets located in either 1st/new 1st/2nd-tier cities. For luxury brands, 13%/ 25%/ 7%/ 38%/16%/1% of the company's outlets were located in 1st/new 1st/2nd/3rd/4th/5th-tier cities, respectively.

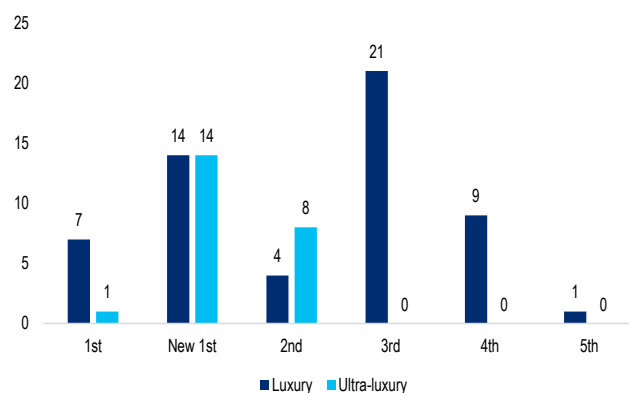
Figure 13. Geographical Distribution of Dealer Stores (as of end-1H21)



*New 1st-tier cities include Chengdu, Hangzhou, Chongqing, Suzhou, Nanjing, etc.

Source: Company Data, Citi Research

Figure 14. Geographical Distribution of Ultra-luxury/Luxury Dealer Stores (as of end-1H21)



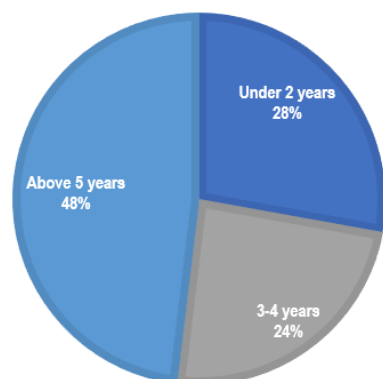
Source: Company Data, Citi Research

In addition, we expect Harmony to continue to grow sales in its home province of Henan, where the company has 39 out of its 79 dealer stores (or 49.4%). With a relatively low penetration rate for luxury brand cars, the Henan market should have strong growth potential. In terms of a near-term catalyst, the regional market is still witnessing growing demand in vehicle replacement (for [c. 400k unit vehicles](#)).

Strong Earnings Outlook for After-sales Services

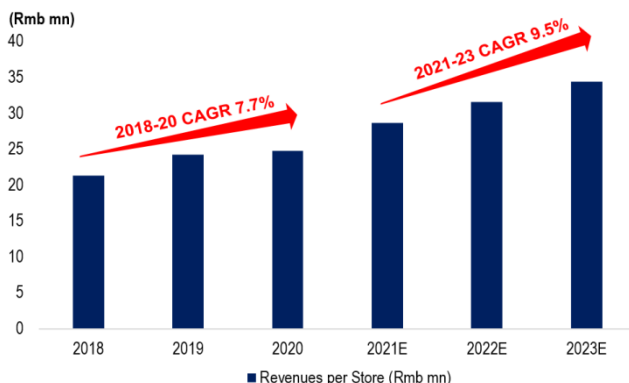
Harmony's stores are comparatively new with an average age of around 5 years, according to management, implying a growing customer base for the after-sales services segment. As of end of Jun-21, 48%/24%/28% of the company's dealer stores were 5+ years/3-4 years/under 2 years. On that, Harmony's after-sales revenue per store posted a 2018-20 CAGR of 7.7%, and we expect growth to maintain at a steady pace (2021-23E CAGR of 9.5%).

Figure 15. Harmony: Age of 4S Stores



Source: Company Reports, Citi Research

Figure 16. Harmony: After-sales Services Revenue per Store



Source: Company Reports, Citi Research Estimates

Thanks to the unique edge from its brand-mix, Harmony's after-sales services segment has been growing strongly, contributing c.12% of total revenue in 1H21. Despite the fast expansion of distribution and the after-sales services network, Harmony has continued to improve its client retention ratio, achieving a half-year increase of 9.51% in 1H21. With the client retention ratio expected to be stable at

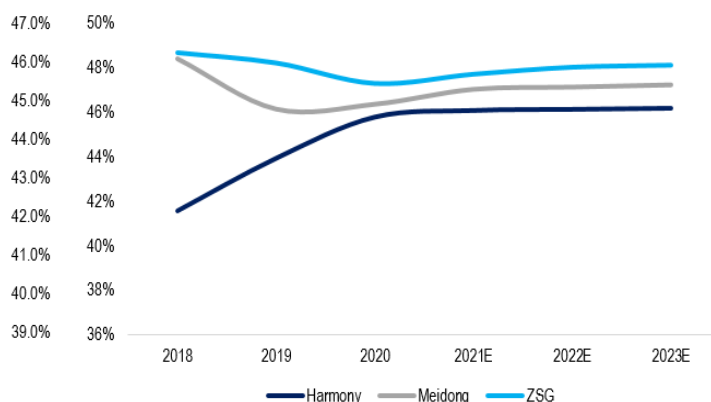
c.70% going forward, we expect the after-sales revenue contribution to hike to 14% in 2023E, with an after-sales revenue CAGR of 20.1% for 2020-23E.

Figure 17. After-sales Services: Gross Profit and GPM



Source: Company Data, Citi Research estimates

Figure 18. After-sales GPM: Peer Comparison

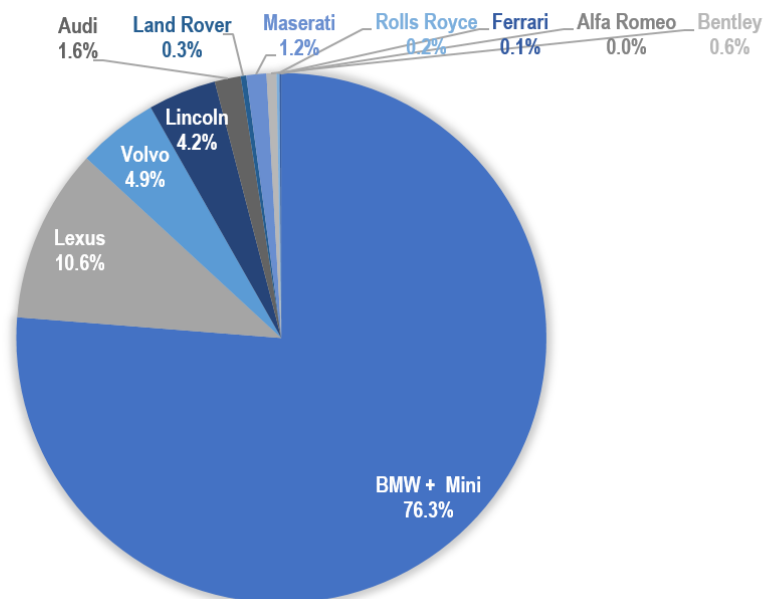


Source: Company Data, Citi Research estimates

Robust New Car Sales Along With Strong Key Brand Performance

Harmony enjoys robust new car sales from strong performances from key brands: BMW/MINI and Lexus among luxury brands, and Maserati and Alfa Romeo among ultra-luxury brands. In terms of new car sales volumes, BMW+MINI accounted for 75%-82% of the total among luxury brands during 2018-1H21, while Maserati accounted for around 60% of the total among ultra-luxury brands. In 1H21, BMW and Lexus brands represented c.88.9% of total sales volumes.

Figure 19. Harmony: New Car Sales from Key Brands (1H21)



Source: Citi Research, Company Data

■ Near-term Growth Driver: New Product Pipelines

In the near-term, we expect Harmony's new car sales to be further boosted by the strong product pipelines of BWM and Lexus: 1) Brilliance BMW X5L forthcoming in 2Q22 is expected to shift supply volume to 100-120k units per year from the current imported volume of 30k units. The strong new product pipeline is expected to further boost Harmony's new car sales outlook; 2) Lexus RZ, as the flagship BEV SUV model of Lexus, is expected to ride on the growth momentum for NEV sales.

Figure 20. Upcoming New Products: Lexus and BMW

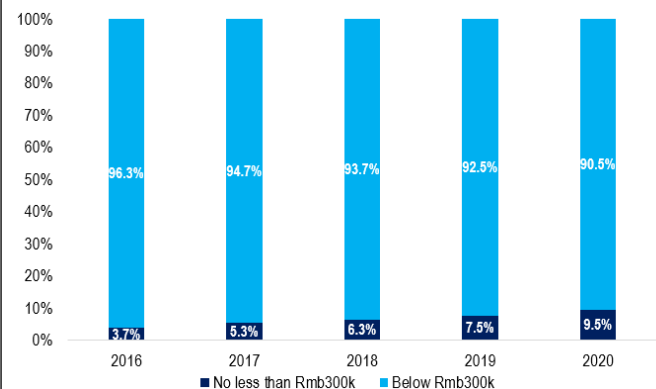
Model	Fuel Type	Size Category	Segment	Schedule
Lexus				
Lexus RZ	BEV	SUV	B	2022E
BMW				
M4 CSL	ICE	Sedan	C	2022E
X5L	ICE	SUV	D	2022E

Source: Company Data, Autohome, Citi Research

■ Long-term Growth Driver: Riding on Demand for Luxury Cars

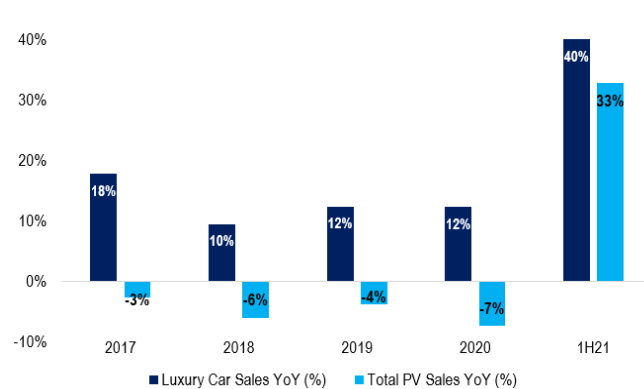
We believe the growth potential of Harmony will increase alongside rising demand for luxury cars, supported by ongoing household consumption upgrade in China's auto market. Per [CAAM](#) (China Association of Automobile Manufacturers) statistics, the sales penetration of luxury vehicles (denoted as vehicle ASP higher than Rmb300k) increased to 9.5% in 2020, from 3.7% in 2016. According to [CBIRC](#) (China Banking and Insurance Regulatory Commission) statistics, the sales growth of luxury cars in 2017-2H21 YoY was higher (often significantly) than for the overall passenger vehicle (PV) market.

Figure 21. Household Consumption Upgrade in Chinese Auto Market



Source: CAAM, Citi Research

Figure 22. Luxury Car Sales YoY Higher than Overall PV Sales YoY

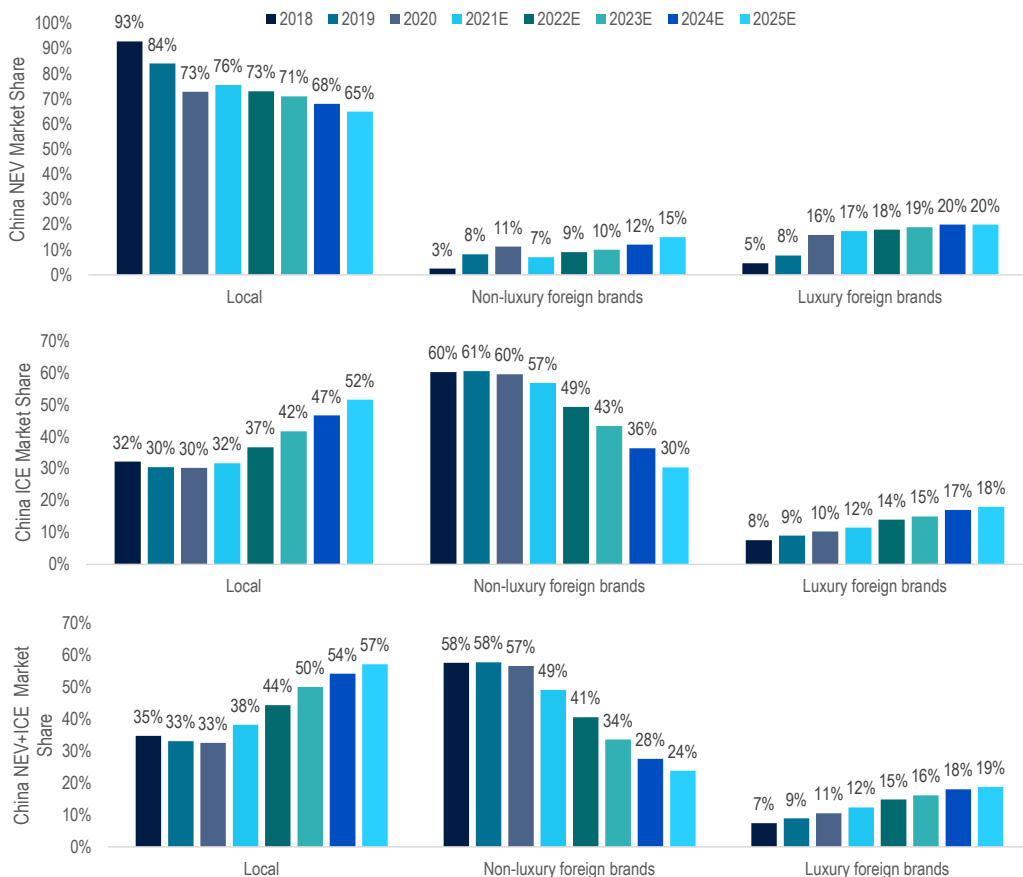


Source: Autohome, CBIRC, Citi Research

As analyzed in our sector report [Auto-Property-Chips 1.0](#), we expect some market share shift among local brands, non-luxury foreign brands and luxury foreign brands in 2022-25E. We expect the NEV market share of luxury foreign brands to grow to 20% by 2025E (from 16% in 2020) as their efforts to increase NEV product offerings will accelerate into 2022E when the pandemic should ease. Likewise, due to competitive ICE and hybrid products by local brands, we expect luxury foreign brands will also continue to see ICE market share gains, to 18% by 2025E (10% in 2020) on ongoing consumption upgrades and an increased retail presence in China.

As a result, luxury foreign brands would see their sector-level (ICE+NEV) market shares widening to 19% by 2025E (from 11% in 2020).

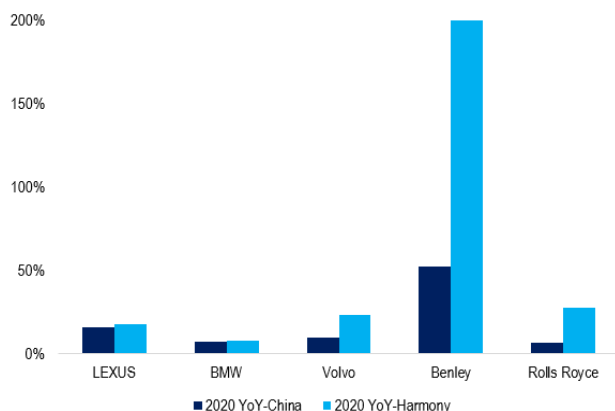
Figure 23. China: NEV-PV/ICE-PV/NEV+ICE-PV



Source: Citi Research, CPCA, Thinkercar

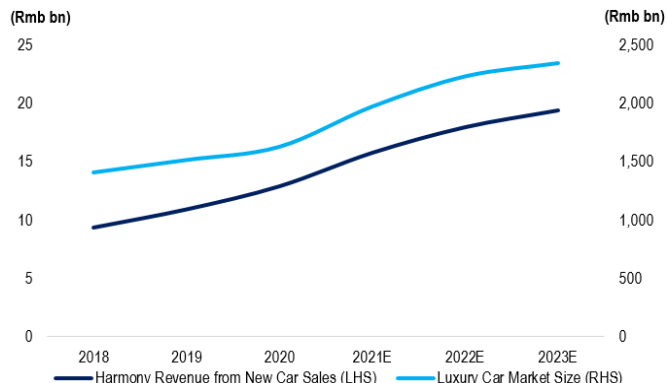
Riding on the fast-evolving demand for luxury car sales, Harmony outperformed the market with its collection of key brands. As shown in Figure 24, the company's brand-level YoY growth of new car sales volumes in 2020 was 2ppt/ 0.7ppt/ 13.7ppt/ 153.1ppt/ 21.2ppt higher than for the sector for Lexus/ BMW/ Volvo/ Bentley/ Rolls-Royce. Moving forward, we expect the company's revenue from new car sales will expand at a similar pace to growth in China's luxury vehicle sector, as shown in Figure 25.

Figure 24. Harmony: Brand Sales YoY Market Beat



Source: Company Reports, Citi Research

Figure 25. Harmony: Riding on Luxury Vehicle Sector Growth

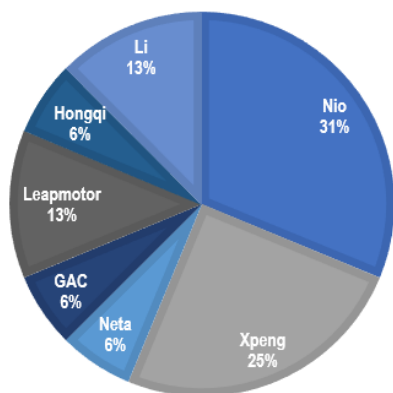


Source: LLResearch, Citi Research Estimates

Asset-light NEV Business Model and Other Business Segments

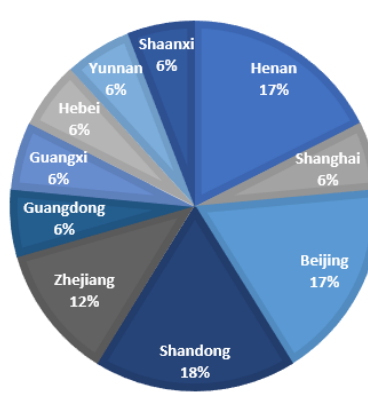
Riding along with the accelerated NEV penetration, Harmony's future growth potential is also supported by its strategic business investments in the NEV sector. As of end of Jun-21, the company held c.20% of Dangdang, an auto-related franchise specializing in NEV after-sales services. We expect Dangdang's FCF to turn positive from 2023E.

Figure 26. Dangdang: Store Breakdown by Brand (as of end-1H21)



Source: Company Data, Citi Research

Figure 27. Dangdang: Store Breakdown by Region (as of end-1H21)

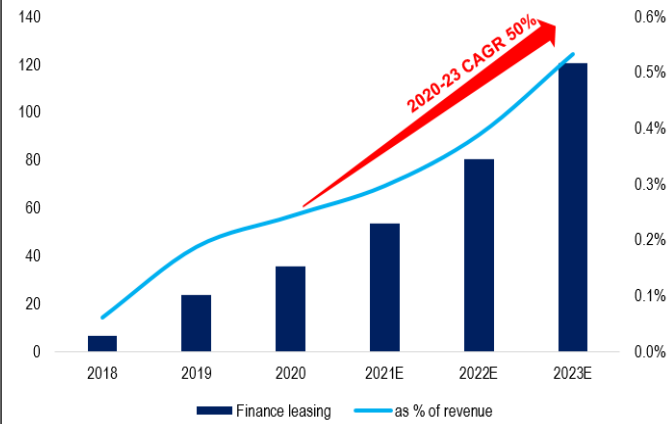


Source: Company Data, Citi Research

Dangdang is in partnership with the leading NEV manufacturers in China, including Nio/Xpeng/Li/Leapmotor/Neta, among many others. Thanks to the asset-light business model of NEV after-sales services stores (capex level at only 10-15% of traditional ICE 4S stores), Dangdang is fast expanding its service network across China.

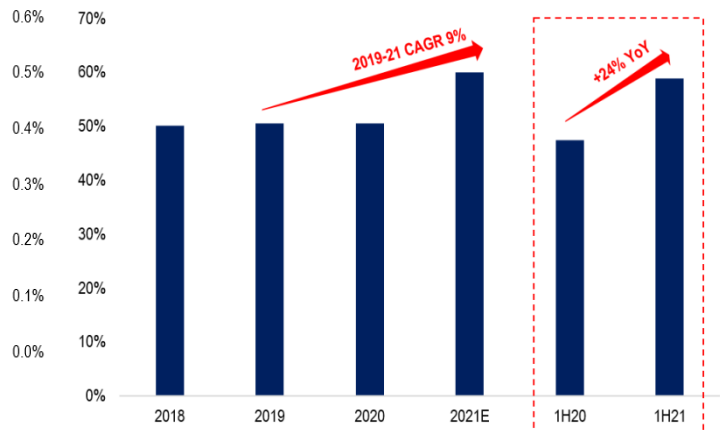
In other business segments, moving forward we also expect the company to benefit from the fast-growing segment of financial leasing. Per management guidance, growth for financial leasing services is expected to be in line with overall YoY growth in FY21, implying a 2020-23 revenue CAGR at 50% (per Figure 28). In addition, the penetration rate of auto finance in new car sales increased at a 9% CAGR in 2019-21E (+24% YoY in 1H21 vs 1H20).

Figure 28. Harmony: Revenue Contribution from Financial Leasing and Other Value-added Services



Source: Company Reports, Citi Research

Figure 29. Harmony: Auto Finance Penetration



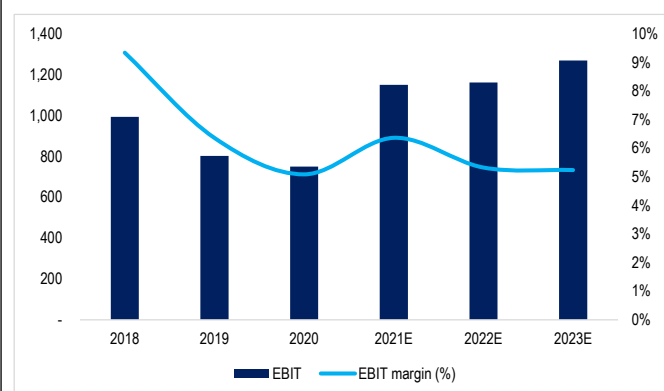
Source: Company Reports, Citi Research

Key Financial Analysis

Rosy Performance Outlook: Net Profit on Uptrend

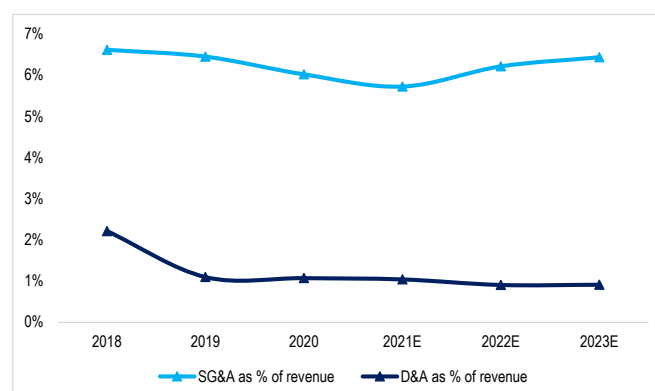
We expect Harmony's operating costs to grow at a steady marginal pace compared to revenue growth going forward. In a similar vein, we expect D&A expenses to be kept at a constant marginal level as per earlier years. For 2021E, we project Harmony's net profit at Rmb751mn, +83% YoY on the constrained performance in 2020 due to the Covid-19 pandemic, and NPM to improve to 4.2% from 2.8% in FY20. We expect the net profit growth to imply 31% 2020-23E CAGR on an enhanced performance outlook for revenue, GPM, and overall efficient control of operating costs.

Figure 30. EBIT and EBIT Margin



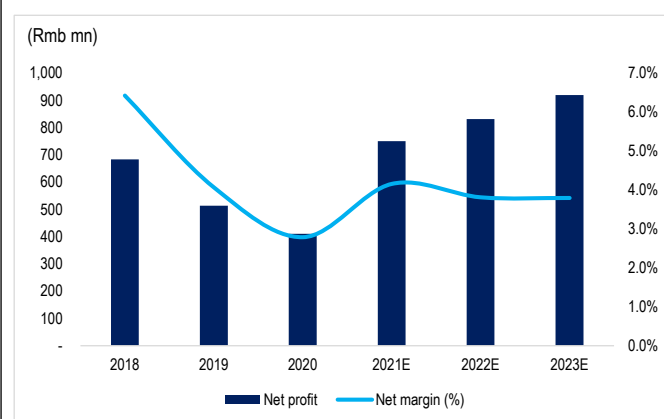
Source: Company Data, Citi Research Estimates

Figure 31. SG&A and D&A as % of Revenue



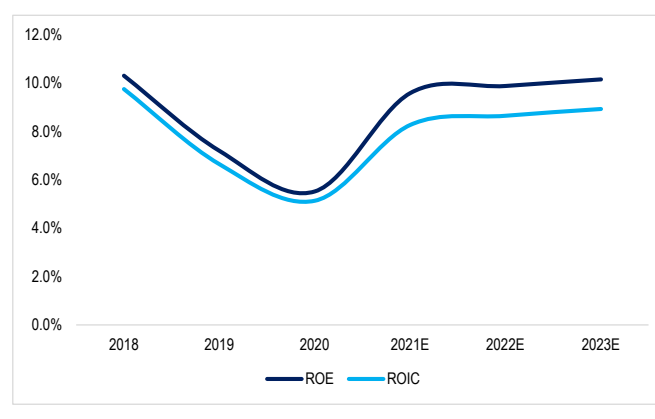
Source: Company Data, Citi Research Estimates

Figure 32. Net Profit and Net Margin



Source: Company Data, Citi Research Estimates

Figure 33. ROE and ROIC



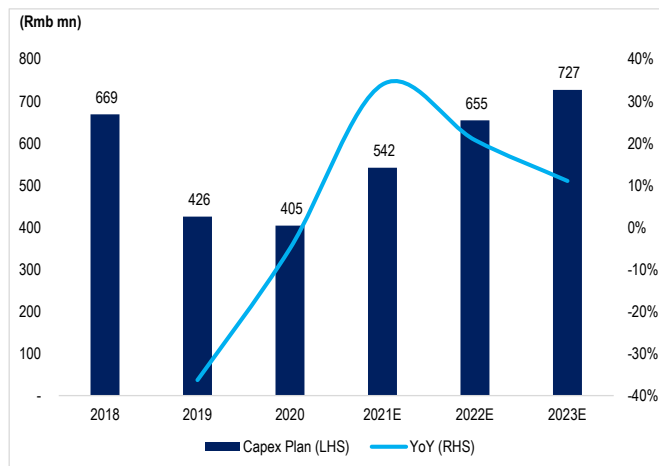
Source: Company Data, Citi Research Estimates

Expect Positive FCF going forward

Harmony incurred capex of Rmb404.6million in 2020 and Rmb170.1mn in 1H21, mainly used for the expenses and prepayments to purchase property, plant and equipment for setting up new outlets. As the overall distributional and after-sales services network will continue to expand, we estimate 34% YoY growth for capex in FY21 to Rmb542mn, to be followed by steady capex increases in FY22/FY23E. With our overall optimistic outlook for net profits and stable capex, we expect the company to have positive FCF of Rmb299mn in 2021E, and to maintain a healthy

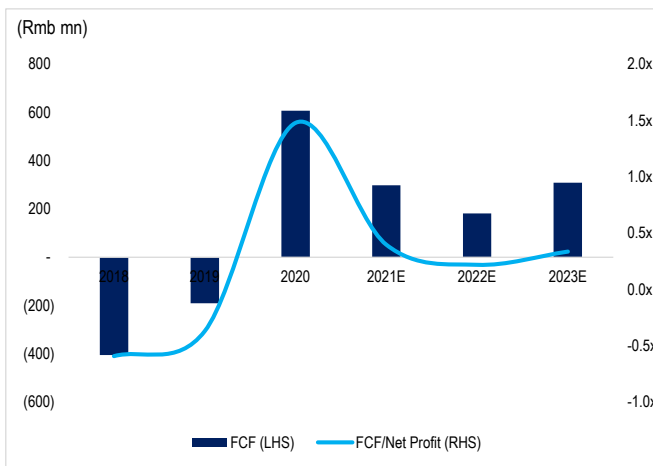
trend going forward. For business efficiency, we expect Harmony to have a stable level of inventory turnover at around 23 days for 2021E, with possible room to cut to 20-21 days in FY22/23E with the company's ongoing commitment to delicacy management on organizational and operational efficiency.

Figure 34. Capex Plan



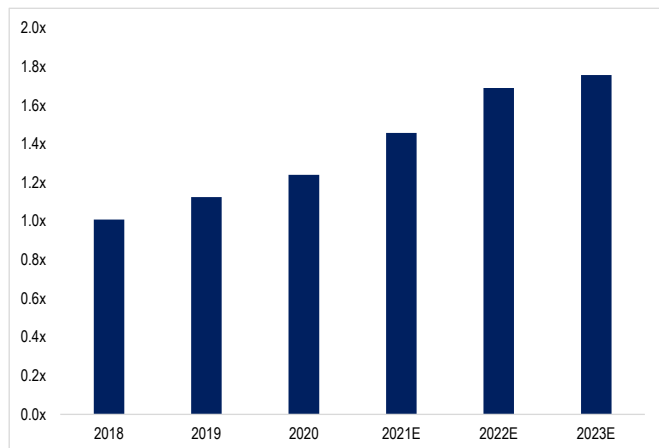
Source: Citi Research, Company Data

Figure 35. Free Cash Flows and FCF/Net Profit



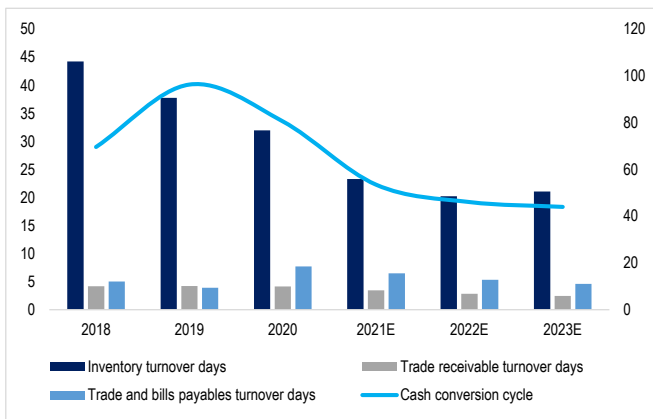
Source: Citi Research, Company Data

Figure 36. Asset Turnover



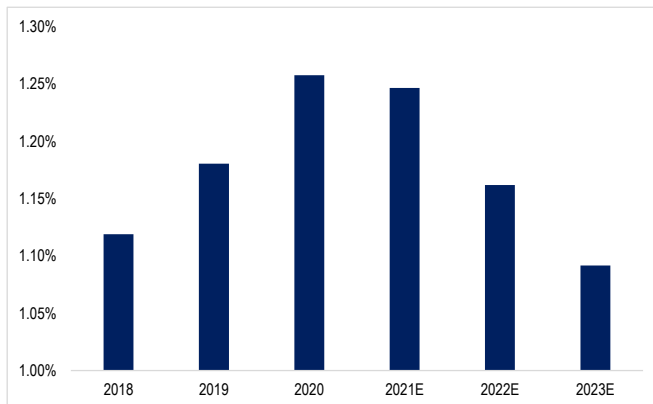
Source: Company Data, Citi Research Estimates

Figure 37. Cash Conversion Cycle



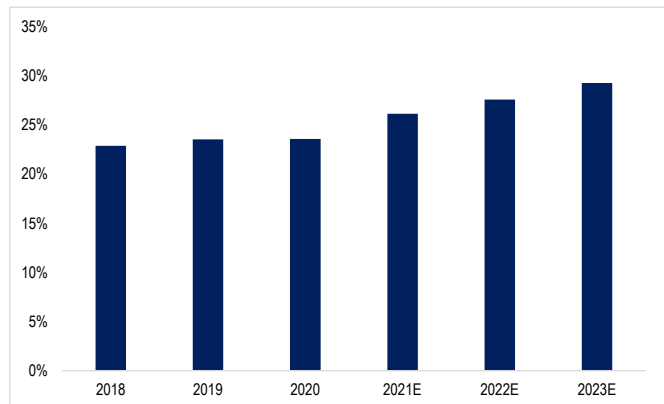
Source: Company Data, Citi Research Estimates

Figure 38. Trade Receivables as % of Total Assets



Source: Company Data, Citi Research Estimates

Figure 39. PPE as % of Total Assets



Source: Company Data, Citi Research Estimates

Valuation

Our target price for Harmony of HK\$8.8 is derived from a sum-of-the-parts valuation, which we believe better captures the fair value of the company's three main sources of income: 1) new car sales, 2) after-sales services, and 3) finance leasing and insurance commissions. We assign:

- 15.5x 2022E P/E (China auto sector average) to new car sales to factor in the decent earnings outlook on the strong model cycle of Harmony's key brands BMW/Lexus as well as the company's unique ultra-luxury brand portfolio;
- 24x 2022E P/E (China auto dealers' after-sales sector average) to the after-sales segment to reflect Harmony's better-than-peers' brand portfolio, as well as improving same-store sales growth as its blended store age gradually matures.
- 10x 2022E P/E (sector average for auto-finance business) to auto-finance and insurance commissions.

Our valuation implies 16.3x blended 2022E P/E, 1.3x 2022-24E PEG, 1.6x 2022E P/B and 10.4x 2022E EV/EBITDA.

Figure 40. Harmony: SoTP Valuation

	2020E EPS	2021E EPS	2022E EPS	2023E EPS	2024E EPS	NP CAGR	Target P/E	TP (HKD)
New Car Sales	0.09	0.19	0.20	0.22	0.24	9%	15.5x PE	2.55
Aftersales	0.17	0.29	0.33	0.37	0.44	15%	24.0x PE	6.24
Finance and insurance commission income	0.00	0.01	0.00	0.00	0.00	0%	10.0x PE	0.04
Total	0.27	0.49	0.54	0.60	0.69	13.0%	16.3x	8.80

Source: Citi Research

- **Cross-checking with Straight PER Valuation:** We cross-check our valuation using a straight PER target approach. Applying a target 2022E PER of 15x, using the company's 2yr historical average, yields a similar fair value of HK\$8.3.

Figure 41. Harmony: Straight PER Valuation

TP (HK\$) - P/E based	8.30
Target 22E P/E	15x
Current Px (HKD)	4.51
Upside	84%

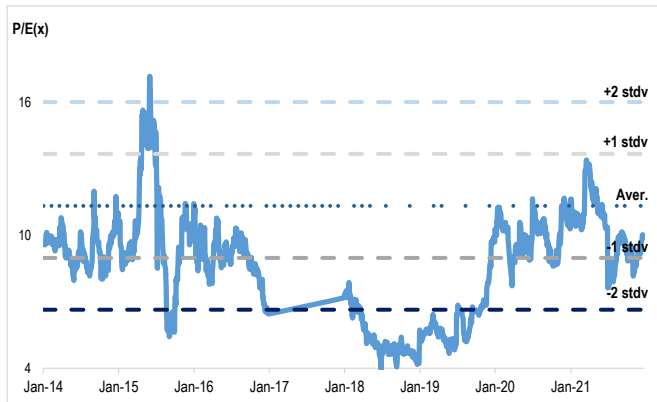
Current Px as of market close price at Dec 22nd Wednesday

Source: Citi Research

- **How our estimates compare against market consensus:** Our 21/22/23 EPS are +10%/+4%/+2% higher than those of consensus as we are relatively more optimistic in both of our new car sales and after-sales assumptions: 1) higher new car sales revenue growth, and 2) higher after-sales ASP growth as

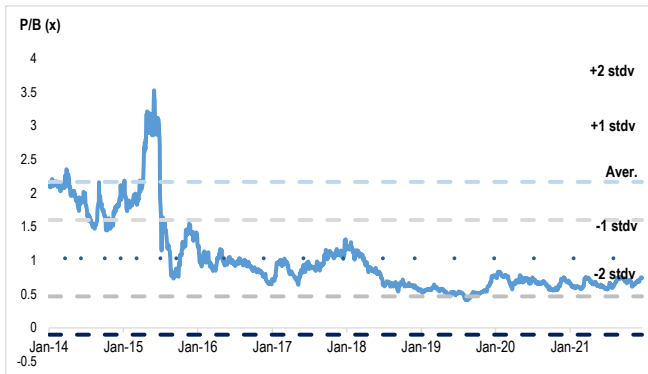
the average store age gradually increases. Our blended GPM assumptions are in-line with consensus at around 9.6%/9.3%/9.6% in 21/22/23E.

Figure 42. Harmony: P/E Band



Source: Citi Research Estimates, Bloomberg

Figure 43. Harmony: P/B Band



Source: Citi Research Estimates, Bloomberg

Risks

Key downside risks includes:

- 1) a weak macro which dampens overall purchasing power in China;
- 2) in a worst-case scenario, a full write-off of Byton (Baiteng) might incur a one-off cost of Rmb1.2bn for FY21, which could lead to FY21E NP loss (though such a one-off would not impact our earnings forecasts for FY22 and beyond). Harmony conducted a strategic investment in Byton (a Chinese NEV brand) starting from 2016, when Byton was named as “Future Mobility”. However, Byton’s operation was heavily impacted amid the bearish auto market in China during 2019 and the pandemic afterwards. In July 2020, Byton announced the suspension of business and production;
- 3) slower-than-expected retail network expansion;
- 4) intensified competition could weigh on profitability, especially for new car sales.

Sector Comps

Figure 44. Global Auto Dealers: Valuation Comps

Company	Ticker	Currency	Price	Mar Cap (mn)	A+H	TP	ETR (%)	Rating	2021	2022	2023	2021	2022	2023	2020	2021	2022	2021	2022	2023	2021	2022	2023	2021	2022	2023	2021	2022	2023	EPS
									Price/Sales	Price/Sales	Price/Sales	Price/Book	Price/Book	Price/Book	EV/Sales	EV/Sales	EV/Sales	EV/EBITDA	EV/EBITDA	EV/EBITDA	Dividend Yield (%)	Dividend Yield (%)	Dividend Yield (%)	21-23 CAGR						
Harmony	3836.HK	HKD	3.78	769	8.80	133%	1	32.9	18.8	13.2	0.9	0.7	0.7	1.8	1.7	1.5	0.6	0.5	0.5	9.4	7.3	6.4	0.12	0.21	0.31				32.7%	
China Auto Dealers																														
Meidong	1268.HK	HKD	29.50	4,735	51.00	73%	1	48.7	27.5	17.6	1.8	1.3	1.0	11.2	8.8	6.6	1.8	1.3	0.9	27.8	17.0	10.8	1.33	2.00	4.55				50.0%	
ZTA	1728.HK	HKD	0.80	278	0.32	-60%	3	-0.2	-0.7	-1.1	0.1	0.1	0.1	0.5	1.4	-4.4	0.8	0.7	0.6	-1.6	-11.9	-107.1	-	-	-				-34.7%	
ZSG	0881.HK	HKD	54.60	16,070	96.90	77%	1	20.0	13.8	10.8	0.7	0.5	0.5	3.9	3.1	2.3	0.8	0.6	0.5	12.2	8.4	7.0	0.98	1.22	1.57				25.5%	
Yongda	3669.HK	HKD	12.92	3,287	27.50	113%	1	12.8	8.7	6.1	0.3	0.2	0.2	1.7	1.5	1.3	0.4	0.3	0.3	7.9	5.9	4.4	1.99	3.41	4.83				29.6%	
Average								20.3	12.3	8.4	0.7	0.5	0.4	4.3	3.7	1.4	0.9	0.7	0.6	11.6	4.8	-21.2	1.07	1.66	2.74				17.6%	
Global Auto Dealers																														
Auto Trader Group plc	ATO.L	GBP	5.88	7,671	7.30	24%	2	25.8	42.5	24.0	14.9	21.8	13.7	39.0	12.5	11.3	16.2	22.1	13.6	22.4	34.6	19.3	40.50	84.37	138.10				40.6%	
Autonation Inc	AN.N	USD	67.98	5,973	n/a	n/a	n/a	9.1	6.6	6.5	0.3	0.3	0.2	1.6	3.2	2.4	0.4	0.4	0.4	8.3	5.0	5.3	-	-	-				39.0%	
Carmax Inc	KMX.N	USD	93.18	15,192	n/a	n/a	n/a	18.1	19.4	19.1	0.8	0.8	0.7	4.1	-	6.0	0.9	0.8	0.8	21.0	0.8	0.8	-	-	-				11.4%	
Asbury Auto	ABG.N	USD	139.79	2,696	n/a	n/a	n/a	9.1	6.3	5.7	0.3	0.2	0.2	2.4	1.9	1.5	0.6	0.5	0.3	10.7	6.3	4.6	-	-	-				28.4%	
Lithia Motors	LAD.N	USD	288.45	7,651	345.00	20%	2	16.3	8.0	8.5	0.5	0.4	0.3	2.9	1.7	1.4	0.7	0.4	0.3	12.1	5.8	5.2	0.41	0.45	0.47				-2.8%	
Group 1 Auto	GPI.N	USD	120.41	2,205	n/a	n/a	n/a	6.6	5.6	5.6	0.2	0.2	0.2	1.4	1.7	1.3	0.4	0.4	0.3	5.8	5.0	5.0	0.60	0.69	0.62				19.0%	
Sonic Auto	SAH.N	USD	38.19	1,606	n/a	n/a	n/a	10.9	6.2	5.3	0.2	0.2	0.1	2.1	1.9	1.3	0.4	0.3	0.2	5.1	5.8	4.7	0.80	0.92	0.99				28.1%	
Penske Auto	PAG.N	USD	58.13	4,670	n/a	n/a	n/a	8.8	6.9	7.5	0.2	0.2	0.2	1.4	2.0	1.7	0.4	0.5	0.4	5.0	5.7	6.2	2.00	1.75	1.63				21.0%	
Average								13.1	12.7	10.3	2.2	3.0	2.0	6.9	3.5	3.4	2.5	3.2	2.1	11.3	8.6	6.4	5.54	11.02	17.73				23.1%	

Price as of market close of Dec 23, 2021

Source: Bloomberg, dataCentral, Citi Research

Financials

Income Statement

Figure 45. Harmony: Income Statement

(mn RMB)	2018	2019	2020	2021E	2022E	2023E	2024E	2025E
Income Statement								
Revenue	10,640	12,622	14,747	18,074	21,830	24,245	26,372	28,546
YoY (%)	-1.8%	18.6%	16.8%	22.6%	20.8%	11.1%	8.8%	8.2%
Rev breakdown								
New car sales	9,354	10,912	12,893	15,767	19,050	20,976	22,587	24,162
After-sales	1,280	1,686	1,818	2,253	2,699	3,148	3,604	4,113
Finance leasing	7	24	36	54	80	121	181	271
Others	-	-	-	-	-	-	-	-
Cost of sales	(9,883)	(11,535)	(13,448)	(16,341)	(19,807)	(21,930)	(23,774)	(25,640)
Gross profit	757	1,087	1,299	1,732	2,023	2,315	2,598	2,906
YoY (%)	-25.7%	43.7%	19.5%	33.4%	16.8%	14.4%	12.3%	11.9%
Gross margin (%)	7.1%	8.6%	8.8%	9.6%	9.3%	9.5%	9.9%	10.2%
Operating expense								
Selling & distribution expense	(549)	(633)	(690)	(807)	(1,049)	(1,206)	(1,327)	(1,526)
Administrative expense	(155)	(181)	(199)	(229)	(308)	(355)	(365)	(420)
Other expenses	-	-	-	-	-	-	-	-
Total operating expense	(704)	(815)	(888)	(1,035)	(1,357)	(1,561)	(1,692)	(1,946)
Other income and gains, net	942	531	340	454	497	516	659	682
EBIT	994	803	750	1,151	1,162	1,270	1,565	1,643
YoY (%)	-29.2%	-19.2%	-6.6%	53.4%	1.0%	9.2%	23.3%	4.9%
EBIT margin (%)	9.3%	6.4%	5.1%	6.4%	5.3%	5.2%	5.9%	5.8%
Core EBIT								
YoY (%)	-37.3%	421.1%	50.7%	69.7%	-4.5%	13.3%	20.2%	6.0%
Core EBIT margin (%)	0.5%	2.2%	2.8%	3.9%	3.0%	3.1%	3.4%	3.4%
EBITDA								
YoY (%)	-30.9%	-15.2%	-2.4%	43.7%	2.6%	9.9%	2.9%	9.3%
EBITDA margin (%)	10.6%	7.6%	6.4%	7.5%	6.3%	6.3%	5.9%	6.0%
Financing costs	(68)	(110)	(134)	(134)	(134)	(134)	(134)	(134)
Share of profit of joint ventures	(109)	(20)	(0.82)	-	-	-	-	-
Share of profit of associates	0	0	2.15	-	-	-	-	-
Profit before taxation	817	673	617	1,016	1,028	1,136	1,431	1,508
Income tax	(127)	(147)	(195)	(254)	(185)	(204)	(358)	(272)
Non-controlling interests	(6)	(13)	(11)	(11)	(11)	(11)	(11)	(11)
Net profit	684	513	411	751	832	920	1,062	1,225
YoY (%)	-32.3%	-24.9%	-20.0%	82.8%	10.8%	10.6%	15.5%	15.4%
Net margin (%)	6.4%	4.1%	2.8%	4.2%	3.8%	3.8%	4.0%	4.3%

Source: Citi Research, Company Data

Balance Sheet

Figure 46. Harmony: Balance Sheet

(mn RMB)	2018	2019	2020	2021E	2022E	2023E	2024E	2025E
Balance Sheet								
Current assets								
Inventories	1,124	1,262	1,094	994	1,201	1,333	1,450	1,570
Trade receivables	123	135	155	155	155	155	155	155
Prepayment, other receivables and other assets	1,797	2,497	2,736	2,530	2,838	3,031	3,165	3,283
Amounts due from related parties	-	-	-	-	-	-	-	-
Structured deposits	-	-	-	-	-	-	-	-
Pledged and restricted bank deposits	75	68	85	85	85	85	85	85
Cash in transit	36	44	22	22	22	22	22	22
Cash and bank balances	1,148	1,362	1,714	1,817	1,777	1,837	2,021	2,310
Time deposits	-	-	-	-	-	-	-	-
Finance lease receivables	51	92	157	157	157	157	157	157
Available-for-sale investments	-	-	-	-	-	-	-	-
Financial assets at fair value through profit or loss	168	88	84	84	84	84	84	84
Cash and cash equivalents	1,366	1,543	1,955	2,058	2,018	2,078	2,262	2,551
Total current assets	4,522	5,548	6,047	5,844	6,319	6,704	7,139	7,666
Non-current assets								
Plant, property, equipments	2,523	2,691	2,914	3,258	3,691	4,168	4,675	5,213
Prepaid land lease payments / right-of-use assets	11	525	731	731	731	731	731	731
Intangible assets	105	99	138	138	138	138	138	138
Goodwill	58	58	142	142	142	142	142	142
Prepayments and other assets	1,603	789	777	777	777	777	777	777
Finance lease receivables	82	131	222	222	222	222	222	222
Investments in joint ventures	6	6	8	8	8	8	8	8
Investments in associates	686	7	7	7	7	7	7	7
Available-for-sale investments	-	-	-	-	-	-	-	-
Financial assets at fair value through profit and loss	1,377	1,390	1,273	1,273	1,273	1,273	1,273	1,273
Deferred tax	49	61	63	63	63	63	63	63
Others	-	118	32	-	-	-	-	-
Total non-current assets	6,500	5,874	6,305	6,617	7,050	7,527	8,034	8,573
Total assets	11,022	11,423	12,352	12,461	13,369	14,231	15,174	16,239
Current liabilities								
Bank loans and other borrowings	2,138	2,494	2,604	2,604	2,604	2,604	2,604	2,604
Trade & bill payables	136	116	264	264	264	264	264	264
Other payables and accruals	987	675	855	1,084	1,309	1,454	1,582	1,712
Income tax payable	786	218	285	349	422	468	509	551
Others	-	30	84	-	-	-	-	-
Total current liabilities	4,047	3,533	4,093	4,302	4,600	4,791	4,960	5,133
Non-current liabilities								
Bank loans and other borrowings	-	-	-	-	-	-	-	-
Deferred tax liabilities	53	56	57	57	57	57	57	57
Others	-	510	655	-	-	-	-	-
Total non-current liabilities	53	566	712	57	57	57	57	57
Total liabilities	4,101	4,099	4,805	4,359	4,657	4,849	5,017	5,190
Shareholders' equity								
Share capital	12	13	13	13	13	13	13	13
Reserve & Retained profits	6,866	7,258	7,476	8,030	8,640	9,310	10,084	10,977
Treasury shares	-	-	-	-	-	-	-	-
Equity attributable to shareholders	6,878	7,270	7,488	8,043	8,653	9,323	10,097	10,990
Minority interest	43	53	59	59	59	59	59	59
Total Shareholders' equity	6,921	7,323	7,547	8,102	8,712	9,382	10,156	11,049
Total liabilities & shareholders' equity	11,022	11,423	12,352	12,461	13,369	14,231	15,174	16,239

Source: Citi Research, Company Data

Statement of Cash Flows

Figure 47. Harmony: Statement of Cash Flows

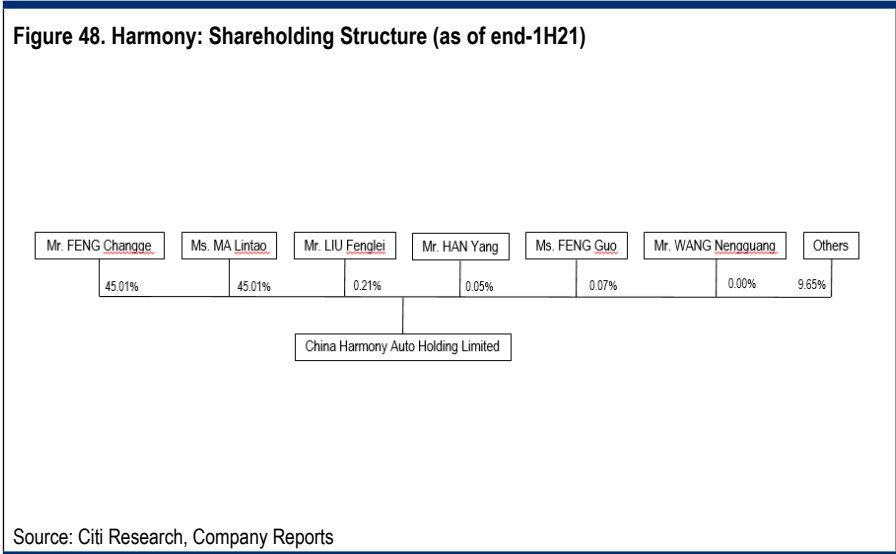
(Rmb mn)	2018	2019	2020	2021E	2022E	2023E	2024E	2025E
Cash Flow Statement								
Operating activities								
Profit before tax	817	673	617	1,005	1,017	1,124	1,420	1,497
Share of profits and losses of joint ventures and associates	109	20	(1)	-	-	-	-	-
Depreciation of items of property, plant and equipment	134	154	183	198	222	251	284	318
Amortisation of prepaid land lease payments	0	-	-	-	-	-	-	-
Amortisation of intangible assets	5	4	5	-	-	-	-	-
Interest income	(102)	-	-	-	-	-	-	-
Loss on disposal of a subsidiary	-	-	-	-	-	-	-	-
Net loss on disposal of items of property, plant and equipment	17	14	11	-	-	-	-	-
Penalty income from cancellation of a potential acquisition contract	-	-	-	-	-	-	-	-
Gain on deemed disposal of subsidiaries	-	-	-	-	-	-	-	-
Gain on deemed partial disposal of an associate	-	-	-	-	-	-	-	-
Gain on transferring the investment in an associate to available-for-sale	-	-	-	-	-	-	-	-
Gain on disposal of shares in an associate	-	(32)	-	-	-	-	-	-
Loss on disposal of shares in a financial asset at fair value through profit or loss	236	-	-	-	-	-	-	-
Fair value gains, net:	-	-	-	-	-	-	-	-
Fair value gain on a financial asset at fair value through profit or loss	(697)	(17)	120	-	-	-	-	-
Impairment/(reversal of impairment) of inventories	8	-	-	-	-	-	-	-
Impairment of property, plant and equipment	-	-	-	-	-	-	-	-
Equity-settled share award expense	-	-	-	-	-	-	-	-
Equity-settled share option expense	26	-	-	-	-	-	-	-
Finance costs	68	110	134	-	-	-	-	-
Decrease in pledged and restricted bank deposits	6	7	(16)	-	-	-	-	-
Decrease/(increase) in cash in transit	1	(8)	22	-	-	-	-	-
(Increase)/decrease in trade receivables	(17)	(12)	(20)	-	-	-	-	-
Increase in prepayments, other receivables and other assets	(280)	(53)	(452)	-	-	-	-	-
Decrease/(increase) in inventories	139	(137)	170	100	(207)	(133)	(117)	(120)
Increase in finance lease receivables	(111)	(91)	(155)	-	-	-	-	-
Decrease in trade and bills payables	(70)	(21)	140	206	(308)	(193)	(134)	(118)
Increase in other payables and accruals	68	(294)	174	(414)	298	192	169	172
Others	-	5	46	-	-	-	-	-
Operating cash flows	356	323	978	1,095	1,022	1,241	1,621	1,750
Income tax paid	(92)	(87)	(179)	(254)	(185)	(204)	(358)	(272)
Net Operating cash flows	264	236	800	841	837	1,037	1,263	1,478
Investing activities								
Interest received	30	41	66	-	-	-	-	-
Dividend received from an associate	-	-	-	-	-	-	-	-
Purchase of items of property, plant and equipment	(669)	(426)	(192)	(542)	(655)	(727)	(791)	(856)
Proceeds from disposal of items of property, plant and equipment	89	106	142	-	-	-	-	-
Purchase of intangible assets	(1)	-	-	-	-	-	-	-
Acquisition of a subsidiary	-	-	(180)	-	-	-	-	-
Disposal of a subsidiary	-	-	-	-	-	-	-	-
Deemed disposal of subsidiaries	-	-	-	-	-	-	-	-
Investments in joint ventures	-	-	-	-	-	-	-	-
Investments in associates	-	-	-	-	-	-	-	-
Proceeds from capital reduction in the investment in a joint venture	-	-	-	-	-	-	-	-
Proceeds from liquidation of an associate	-	192	-	-	-	-	-	-
Proceeds from disposal of financial assets at fair value through profit or loss	247	84	-	-	-	-	-	-
Purchases of financial assets at fair value through profit or loss/available-for-sale	(254)	-	-	-	-	-	-	-
Loans to a third party	(260)	(42)	260	-	-	-	-	-
Repayment of loans to third parties	-	-	-	-	-	-	-	-
Advance made to a related party	(108)	-	(315)	-	-	-	-	-
Collection of loans and receivables from third parties	200	-	-	-	-	-	-	-
Penalty income from cancellation of a potential acquisition contract	-	-	-	-	-	-	-	-
Proceeds from disposal of shares in an associate	-	-	-	-	-	-	-	-
(Increase)/decrease in time deposits	(95)	(230)	(10)	-	-	-	-	-
Decrease in structured deposits	-	-	-	-	-	-	-	-
Others	-	2	(2)	-	-	-	-	-
Net Investing cash flows	(821)	(273)	(230)	(542)	(655)	(727)	(791)	(856)
Financing activities								
Proceeds from exercise of share options	2	4	13	-	-	-	-	-
Share issue expenses/proceeds	-	134	-	-	-	-	-	-
Repurchase of shares	(40)	(167)	(25)	-	-	-	-	-
Proceeds from bank loans and other borrowings	11,610	11,922	11,783	-	-	-	-	-
Repayment of bank loans and other borrowings	(11,289)	(11,566)	(11,672)	-	-	-	-	-
Acquisition of non-controlling interests	(3)	-	(4)	-	-	-	-	-
Dividends paid	(161)	(156)	(104)	(196)	(222)	(250)	(288)	(333)
Dividends paid to a non-controlling shareholder	(4)	(2)	-	-	-	-	-	-
Capital contributions from non-controlling shareholders	-	-	-	-	-	-	-	-
Interest paid	(85)	-	(143)	-	-	-	-	-
Others	200	(194)	(57)	-	-	-	-	-
Net financing cash flows	231	(26)	(208)	(196)	(222)	(250)	(288)	(333)
Cash at beginning of year	1,475	1,148	1,362	1,704	1,807	1,767	1,827	2,011
Net increase in cash	(326)	(62)	361	102	(39)	60	184	289
FX Effect	(1)	276	(18)	-	-	-	-	-
Cash at the end of year	1,148	1,362	1,704	1,807	1,767	1,827	2,011	2,300

Source: Citi Research, Company Data

Company Background

Harmony Auto is a leading automotive services group in China, representing 14 luxury and ultra-luxury brands in 39 cities across the country. It serves 9 luxury brands such as BMW, MINI, Audi, Volvo, Land Rover, Lexus, Jaguar, Lincoln, Alfa Romeo and 5 super luxury brands such as Rolls-Royce, Bentley, Ferrari, Lamborghini, and Maserati.

Shareholding Structure



Management

Figure 49. Harmony: Management Background

Management name	Position	Background
Mr. Feng Changge	Chairman	Mr. Feng is the chairman and one of the founders of Harmony group. He is also the co-founder of FMC smart electric vehicles. He is responsible for the strategic management of the group and formulating the overall goals and tasks. He graduated from Zhongnan University of Political Science and Law (now known as Zhongnan University of Economics and Law) in 1992 with a bachelor degree in economic law and in 2001 he completed his master degree in Law. After graduating in 1992, he served in Henan Higher People's Court. Mr. Feng quitted his job and ventured into automotive business in 2002. He has over 15 years of extensive experience in the Chinese automotive industry and has unique insights into the industry.
Mr. Liu Fenglei	CEO	Mr. Liu is the chief executive officer and one of the founders of the Group. He is responsible for the overall management and operation of the Group. He obtained a bachelor's degree in business English from Zhengzhou University in 1998. He joined Harmony Group in February 2003 as assistant to the chairman of Henan Zhongdebao Automobile Sales and Service Co., Ltd. Mr. Liu was assigned as the general manager of Zhengzhou Yuanda Lexus Sales and Service Co., Ltd. in August 2006, and was appointed as the vice president / director of network development of China Harmony New Energy Automobile Holdings Limited in April 2013. The board of directors believe that Mr. Liu has rich experience in automotive industry and made a major contribution to the development of the Group. Mr. Liu proved his ability with outstanding work and strong execution during his tenure. He was appointed as Executive Director and CEO of China Harmony New Energy Automobile Holdings Limited in October 2015.
Mr. Zhang Lei	CFO	Mr. Zhang is the Group's Chief Financial Officer and is responsible for the Group's financial planning, strategy and management. Mr. Zhang joined Henan Zhongdebao Automobile Sales and Service Co., Ltd. of Harmony Group in March 2005. He has served as an accounting supervisor and financial manager; and has been the chief accountant of the Group since May 2011. He has extensive experience in finance, auditing, taxation and capital management in the automotive industry, and Mr. Zhang holds the qualification of senior accountant. In August 2017, Mr. Zhang was appointed as the Chief Financial Officer of China Harmony New Energy Automobile Holdings Limited.
Ms. Ma Lintao	VP	Ms. Ma is the vice president of the Group and is responsible for the administration and public relations of the Group. Ms. Ma graduated from Henan University of Finance and Economics (now Henan University of Economics and Law) with a bachelor degree in national economic planning and statistics in June 1992. From July 1992 to November 2003, Ms. Ma worked at the Henan Branch of China Construction Bank. She served as the director of the Credit Approval Committee and the deputy governor of Futures in Zhengzhou branch. Ms. Ma joined the company in November 2003. In June 2006, he served as chairman and legal representative of Zhengzhou Yuanda Lexus Sales Service Co., Ltd. She participated in building the first Lexus 4S shop in Henan, and led the team to obtain Lexus China Distributor of the Year for five times. In April 2013, he was appointed as executive director and vice president of China Harmony New Energy Automobile Holdings Limited. Ms. Ma is responsible for the operation and management of the second division department of the automotive business. Her extensive enterprise operation management experience and good risk control capabilities have made significant contributions to the business development of Lexus and other brands in the second division department.
Ms. Feng Guo	VP	Ms. Feng is the vice president of the group and is responsible for the group's audit, internal control and financial management at the subsidiary level. Ms. Feng participated in BMW China's establishment of a Henan province partnership and the establishment of Zhongdebao. Ms. Feng is also responsible for the development of automobile brands such as BMW, Land Rover and Rolls-Royce. She has extensive experience in the operation, financial accounting, capital planning, and financial data analysis of luxury and ultra-luxury automobile brands in automobile dealership groups, and has solid networks and resources in commercial banking. Ms. Feng has excellent management, organizational coordination, and risk control capabilities. Ms. Feng graduated from Zhengzhou University with an undergraduate degree in law in 2007 and obtained a master degree in business administration from Zhongnan University of Economics and Law in 2009. Ms. Feng joined Henan Zhongdebao Automobile Sales Service Co., Ltd. in March 2004 as a financial manager and deputy general manager. In October 2010, she was appointed as the chief financial officer of China Harmony New Energy Automobile Holdings Co., Ltd., and in August 2017, she took the position of executive director and vice president of China Harmony New Energy Automobile Holdings Co., Ltd.

Source: Citi Research, Company Reports

History

- In 2001, Jinsha Lake International Golf Club was established.
- In 2005, it was authorized by the first BMW brand in Henan Province to establish Henan Zhongdebao.
- In 2007, Henan Harmony Real Estate Co., Ltd. was established.
- In 2008, Henan Harmony Industry Group Co., Ltd. was established.

- **In 2013**, China Harmony New Energy Auto Holding Limited was successfully listed on the stock market of Hong Kong (stock name: Harmony Automobile Co., Ltd., stock code: 03836. HK).
- **In 2015**, Tencent, Foxconn and China Harmony Auto Holding Ltd. signed the "Internet+ smart electric vehicle strategic cooperation framework agreement" by the three parties, marking the Harmony Group's formal entry into the new energy vehicle field.
- **In 2016**, Harmony Group, as a founding investor, registered and established a global intelligent joint electric vehicle company in Hong Kong, China, known as FMC (Future Mobility Corporation Ltd).
- **In 2019**, the group merged the "Harmony Auto Repair" and "Harmony Zhilian" established in 2017 and 2018, and renamed them "Dangdang New Energy Auto" (Dangdang Auto Repair).
- **From June to November 2019**, China Harmony Auto Holding Ltd. signed strategic cooperation agreements with ISUZU, Suning Auto, Everbright Bank, Zhongyuan Bank, etc.
- **In June 2019**, Harmony Group donated 200,000 RMB to "Community Governance and Development Charity Fund" of Ruyi Lake Office, Zhengdong New District, Zhengzhou city.
- **In November 2019**, China Harmony Auto Holding Ltd. reached a strategic cooperation with Mr. Lee Ka Kit, Chairman of Hong Kong Henderson Land Development.
- **In July 2021**, Harmony Group donated 11 million yuan for flood relief and post disaster reconstruction in Henan.

Headquarters

The company's principal place of business and headquarter in PRC is located in Zhengzhou, Henan Province.

Employees

As of December 31, 2020, the group had 4,206 employees (2019: 3,589), including 4,203 employees in Mainland China, 2 in Hong Kong and 1 in Macao. The group believes it provides competitive remuneration and benefits, adjusts salaries in accordance with the actual situation in each year, and regularly reviews its compensation and performance appraisal mechanism to reduce employee turnover.

Bull/Bear: Harmony Auto (3836.HK)

Bull/Bear: Harmony Auto (3836.HK)

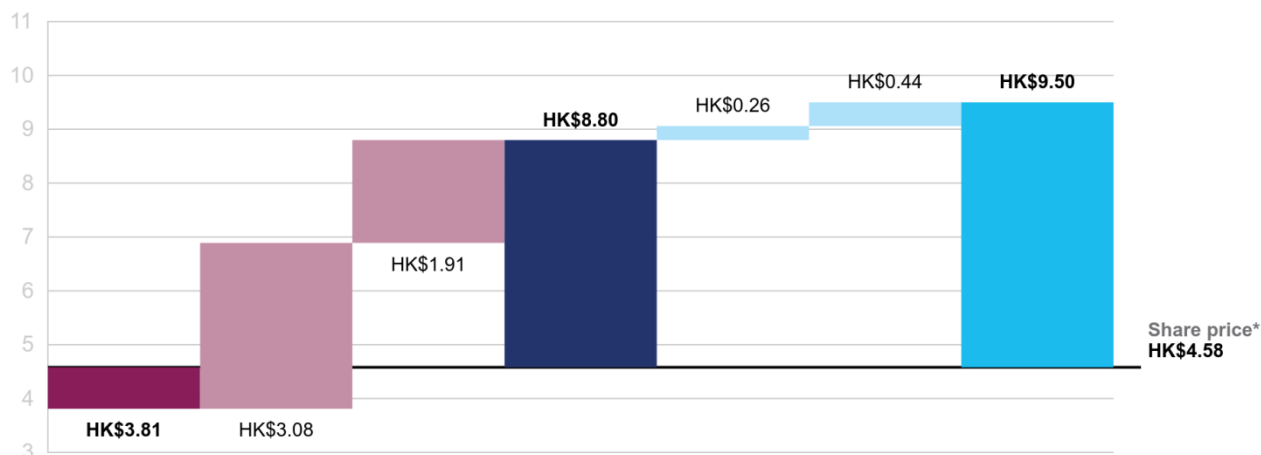


HK\$8.8 target price

92% expected share price return

Buy rating

124pp Bull/Bear Spread



PV sales volume 25% below forecast in 22E
Aftersales GPM 8ppts lower than estimate in 22E



PV sales volume 3% above forecast in 22E
Aftersales service revenue to grow 5% above forecast in 22E



Share price*
HK\$4.58

Source: Citi Research

*Share price as of 24 Dec 2021 16:10



HK\$9.5

- PV sales volume 3% above forecast in 22E
- Aftersales service revenue to grow 5% above forecast in 22E



HK\$8.8

- New car sales volume at 39k with gross margin at 4.3% in 22E
- Aftersales service revenue +20% YoY with gross margin at 46.1% in 22E



HK\$3.81

- PV sales volume 25% below forecast in 22E
- Aftersales GPM 8ppts lower than estimate in 22E

Harmony Auto

Company description

Harmony Auto is a leading automotive dealer group in China, representing 14 luxury and ultra-luxury brands in 39 cities across the country. As of end of FY20, ultra-luxury new car sales accounted for 8% of Harmony's total new car sales revenue. The company's headquarters are in Zhengzhou, Henan Province.

Investment strategy

We have a Buy rating on Harmony based on our positive outlook for luxury/ultra-luxury brand car sales in China. We estimate Harmony's 2020-23E revenue CAGR to be 18.0%, supported by 1) its unique ultra-luxury/luxury brand-mix and exposure to top-tier cities; 2) a strong earnings outlook for after-sales services; 3) robust new car sales along with strong key brand performance; and 4) its asset-light NEV business model and other business segments.

Valuation

Our sum-of-the-parts target price for Harmony of HK\$8.8 is based on: 1) 15.5x 22E P/E (sector average) for new car sales to factor in a decent earnings outlook given the strong product cycle of the key brands (BMW/Lexus) as well as the company's unique ultra-luxury brand portfolio; and 2) 24x 22E P/E (sector average) for the after-sales segment on the contribution from ultra-luxury brands and steady SSSG as the blended store age gradually matures. Our valuation implies 16.3x blended 22E P/E, 1.3x 21-23E PEG and 1.6x 22E P/B.

Risks

Key downside risks that could mean the Harmony shares fail to achieve our target price include: 1) a weak macro which dampens overall purchasing power in China; 2) in a worst-case scenario, a full write-off of Byton (Baiteng) might incur a one-off cost of Rmb1.2bn for FY21, which could lead to FY21E NP loss (though such a one-off would not impact our earnings forecasts for FY22 and beyond); 3) slower-than-expected network expansion; and 4) intensified competition could weigh on profitability, especially for new car sales.

If you are visually impaired and would like to speak to a Citi representative regarding the details of the graphics in this document, please call USA 1-888-800-5008 (TTY: 711), from outside the US +1-210-677-3788

Appendix A-1

ANALYST CERTIFICATION

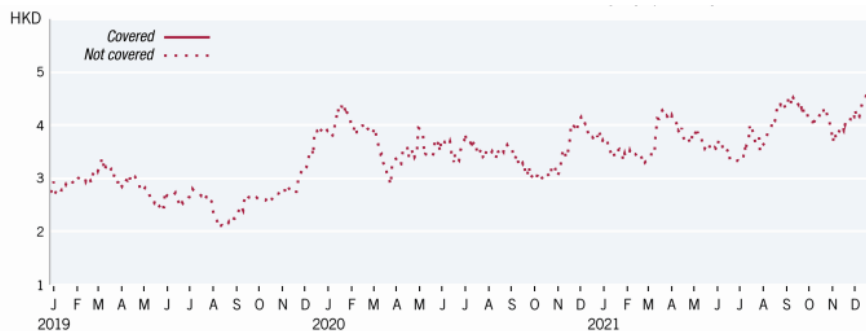
The research analysts primarily responsible for the preparation and content of this research report are either (i) designated by "AC" in the author block or (ii) listed in bold alongside content which is attributable to that analyst. If multiple AC analysts are designated in the author block, each

analyst is certifying with respect to the entire research report other than (a) content attributable to another AC certifying analyst listed in bold alongside the content and (b) views expressed solely with respect to a specific issuer which are attributable to another AC certifying analyst identified in the price charts or rating history tables for that issuer shown below. Each of these analysts certify, with respect to the sections of the report for which they are responsible: (1) that the views expressed therein accurately reflect their personal views about each issuer and security referenced and were prepared in an independent manner, including with respect to Citigroup Global Markets Inc. and its affiliates; and (2) no part of the research analyst's compensation was, is, or will be, directly or indirectly, related to the specific recommendations or views expressed by that research analyst in this report.

IMPORTANT DISCLOSURES

Harmony Auto (3836.HK)

Ratings and Target Price History
Fundamental Research



*Indicates Change

Rating/target price changes above reflect Eastern Time

The Firm has made a market in the publicly traded equity securities of Auto Trader Group PLC on at least one occasion since 1 Jan 2020.

Within the past 12 months, Citigroup Global Markets Inc. or its affiliates has acted as manager or co-manager of an offering of securities of Lithia Motors, Inc..

Citigroup Global Markets Inc. or its affiliates has received compensation for investment banking services provided within the past 12 months from Auto Trader Group plc, Lithia Motors, Inc..

Citigroup Global Markets Inc. or its affiliates received compensation for products and services other than investment banking services from Meidong Auto, Yongda in the past 12 months.

Citigroup Global Markets Inc. or its affiliates currently has, or had within the past 12 months, the following as investment banking client(s): Auto Trader Group plc, Lithia Motors, Inc..

Citigroup Global Markets Inc. or its affiliates currently has, or had within the past 12 months, the following as clients, and the services provided were non-investment-banking, securities-related: Meidong Auto, Yongda.

Citigroup Global Markets Inc. or its affiliates currently has, or had within the past 12 months, the following as clients, and the services provided were non-investment-banking, non-securities-related: Yongda.

Disclosure for investors in the Republic of Turkey: Under Capital Markets Law of Turkey (Law No: 6362), the investment information, comments and recommendations stated here, are not within the scope of investment advisory activity. Investment advisory service is provided in accordance with a contract of engagement on investment advisory concluded between brokerage houses, portfolio management companies, non-deposit banks and clients. Comments and recommendations stated here rely on the individual opinions of the ones providing these comments and recommendations. These opinions may not fit to your financial status, risk and return preferences. For this reason, to make an investment decision by relying solely to this information stated here may not bring about outcomes that fit your expectations. Furthermore, Citi Research is a division of Citigroup Global Markets Inc. (the "Firm"), which does and seeks to do business with companies and/or trades on securities covered in this research reports. As a result, investors should be aware that the Firm may have a conflict of interest that could affect the objectivity of this report, however investors should also note that the Firm has in place organisational and administrative arrangements to manage potential conflicts of interest of this nature.

Analysts' compensation is determined by Citi Research management and Citigroup's senior management and is based upon activities and services intended to benefit the investor clients of Citigroup Global Markets Inc. and its affiliates (the "Firm"). Compensation is not linked to specific transactions or recommendations. Like all Firm employees, analysts receive compensation that is impacted by overall Firm profitability which includes investment banking, sales and trading, and principal trading revenues. One factor in equity research analyst compensation is arranging corporate access events between institutional clients and the management teams of covered companies. Typically, company management is more likely to participate when the analyst has a positive view of the company.

For securities recommended in the Product in which the Firm is not a market maker, the Firm is a liquidity provider in the issuers' financial instruments and may act as principal in connection with such transactions. The Firm is a regular issuer of traded financial instruments linked to securities that may have been recommended in the Product. The Firm regularly trades in the securities of the issuer(s) discussed in the Product. The Firm may engage in securities transactions in a manner inconsistent with the Product and, with respect to securities covered by the Product, will buy or sell from customers on a principal basis.

The Firm is a market maker in the publicly traded equity securities of Auto Trader Group plc.

Unless stated otherwise neither the Research Analyst nor any member of their team has viewed the material operations of the Companies for which an investment view has been provided within the past 12 months.

For important disclosures (including copies of historical disclosures) regarding the companies that are the subject of this Citi Research product ("the Product"), please contact Citi Research, 388 Greenwich Street, 30th Floor, New York, NY, 10013, Attention: Legal/Compliance [E6WYB6412478]. In addition, the same important disclosures, with the exception of the Valuation and Risk assessments and historical disclosures, are contained on the Firm's disclosure website at https://www.citivelocity.com/cvr/eppublic/citi_research_disclosures. Valuation and Risk assessments can be found in the text of the most recent research note/report regarding the subject company. Pursuant to the Market Abuse Regulation a history of all Citi Research recommendations published during the preceding 12-month period can be accessed via Citi Velocity (<https://www.citivelocity.com/cv2>) or your standard distribution portal. Historical disclosures (for up to the past three years) will be provided upon request.

Citi Research Equity Ratings Distribution

Data current as of 30 Sep 2021	12 Month Rating			Catalyst Watch		
	Buy	Hold	Sell	Buy	Hold	Sell
Citi Research Global Fundamental Coverage (Neutral=Hold)	59%	33%	8%	27%	64%	9%
% of companies in each rating category that are investment banking clients	64%	66%	55%	70%	63%	69%

Guide to Citi Research Fundamental Research Investment Ratings:

Citi Research stock recommendations include an investment rating and an optional risk rating to highlight high risk stocks.

Risk rating takes into account both price volatility and fundamental criteria. Stocks will either have no risk rating or a High risk rating assigned.

Investment Ratings: Citi Research investment ratings are Buy, Neutral and Sell. Our ratings are a function of analyst expectations of expected total return ("ETR") and risk. ETR is the sum of the forecast price appreciation (or depreciation) plus the dividend yield for a stock within the next 12 months. The target price is based on a 12 month time horizon. The Investment rating definitions are: Buy (1) ETR of 15% or more or 25% or more for High risk stocks; and Sell (3) for negative ETR. Any covered stock not assigned a Buy or a Sell is a Neutral (2). For stocks rated Neutral (2), if an analyst believes that there are insufficient valuation drivers and/or investment catalysts to derive a positive or negative investment view, they may elect with the approval of Citi Research management not to assign a target price and, thus, not derive an ETR. Additionally, in certain circumstances Citi Research may suspend its rating and target price and place the stock "Under Review". "Under Review" status may be imposed when the rating has been suspended for (a) regulatory and/or internal policy reasons or (b) other exceptional circumstances (e.g. lack of information critical to the analyst's thesis) affecting the company and / or trading in the company's securities (e.g. trading suspension). In such situations, the rating and target price will show as "—" and "—" respectively in the rating history price chart. As soon as practically possible, the analyst will publish a note re-establishing a rating and investment thesis. Investment ratings are determined by the ranges described above at the time of initiation of coverage, a change in investment and/or risk rating, or a change in target price (subject to limited management discretion). At times, the expected total returns may fall outside of these ranges because of market price movements and/or other short-term volatility or trading patterns. Such interim deviations will be permitted but will become subject to review by Research Management. Your decision to buy or sell a security should be based upon your personal investment objectives and should be made only after evaluating the stock's expected performance and risk.

Catalyst Watch Upside/Downside calls:

Citi Research may also include a Catalyst Watch Upside or Downside call to highlight specific near-term catalysts or events impacting the company or the market that are expected to influence the share price over a specified period of 30 or 90 days. A Catalyst Watch Upside (Downside) call indicates that the analyst expects the share price to rise (fall) in absolute terms over the specified period. A Catalyst Watch Upside/Downside call will automatically expire at the end of the specified 30/90 day period; the analyst may also close a Catalyst Watch call prior to the end of the specified period in a published research note. A Catalyst Watch Upside or Downside call may be different from and does not affect a stock's fundamental equity rating, which reflects a longer-term total absolute return expectation. For purposes of FINRA ratings-distribution-disclosure rules, a Catalyst Watch Upside call corresponds to a buy recommendation and a Catalyst Watch Downside call corresponds to a sell recommendation. Any stock not assigned to a Catalyst Watch Upside or Catalyst Watch Downside call is considered Catalyst Watch Non-Rated (CWNRR). For purposes of FINRA ratings-distribution-disclosure rules, we correspond CWNRR to Hold in our ratings distribution table for our Catalyst Watch Upside/Downside rating system. However, we reiterate that we do not consider CWNRR to be a recommendation. For all Catalyst Watch Upside/Downside calls, risk exists that the catalyst(s) and associated share-price movement will not materialize as expected.

RESEARCH ANALYST AFFILIATIONS / NON-US RESEARCH ANALYST DISCLOSURES

The legal entities employing the authors of this report are listed below (and their regulators are listed further herein). Non-US research analysts who have prepared this report (i.e., all research analysts listed below other than those identified as employed by Citigroup Global Markets Inc.) are not registered/qualified as research analysts with FINRA. Such research analysts may not be associated persons of the member organization (but are employed by an affiliate of the member organization) and therefore may not be subject to the FINRA Rule 2241 restrictions on communications with a subject company, public appearances and trading securities held by a research analyst account.

Citigroup Global Markets Asia Limited

Jeff Chung; Beatrice Lam; Brandy Wang

OTHER DISCLOSURES

Any price(s) of instruments mentioned in recommendations are as of the prior day's market close on the primary market for the instrument, unless otherwise stated.

The completion and first dissemination of any recommendations made within this research report are as of the Eastern date-time displayed at the top of the Product. If the Product references views of other analysts then please refer to the price chart or rating history table for the date/time of completion and first dissemination with respect to that view.

Regulations in various jurisdictions require that where a recommendation differs from any of the author's previous recommendations concerning the same financial instrument or issuer that has been published during the preceding 12-month period that the change(s) and the date of that previous recommendation are indicated. For fundamental coverage please refer to the price chart or rating change history within this disclosure appendix or the issuer disclosure summary at https://www.citivelocity.com/cvr/eppublic/citi_research_disclosures.

Citi Research has implemented policies for identifying, considering and managing potential conflicts of interest arising as a result of publication or distribution of investment research. A description of these policies can be found at https://www.citivelocity.com/cvr/eppublic/citi_research_disclosures.

The proportion of all Citi Research research recommendations that were the equivalent to "Buy", "Hold", "Sell" at the end of each quarter over the prior 12 months (with the % of these that had received investment firm services from Citi in the prior 12 months shown in brackets) is as follows: Q3 2021 Buy 34% (68%), Hold 43% (58%), Sell 23% (49%), RV 0.7% (76%); Q2 2021 Buy 33% (68%), Hold 43% (57%), Sell 23% (50%), RV 0.7% (79%); Q1 2021 Buy 33% (66%), Hold 43% (58%), Sell 23% (48%), RV 0.7% (78%); Q4 2020 Buy 33% (69%), Hold 43% (60%), Sell 23% (54%), RV 0.6% (79%). For the purposes of disclosing recommendations other than for equity (whose definitions can be found in the corresponding disclosure sections), "Buy" means a positive directional trade idea; "Sell" means a negative directional trade idea; and "Relative Value" means any trade idea which does not have a clear direction to the investment strategy.

European regulations require a 5 year price history when past performance of a security is referenced. CitiVelocity's Charting Tool (https://www.citivelocity.com/cv2/go/CHARTING_3_Equities) provides the facility to create customisable price charts including a five year option. This tool can be found in the Data & Analytics section under any of the asset class menus in CitiVelocity (<https://www.citivelocity.com/>). For further information contact CitiVelocity support (https://www.citivelocity.com/cv2/go/CLIENT_SUPPORT). The source for all referenced prices, unless otherwise stated, is DataCentral, which sources price information from Thomson Reuters. Past performance is not a guarantee or reliable indicator of future results. Forecasts are not a guarantee or reliable indicator of future performance.

Investors should always consider the investment objectives, risks, and charges and expenses of an ETF carefully before investing. The applicable prospectus and key investor information document (as applicable) for an ETF should contain this and other information about such ETF. It is important to read carefully any such prospectus before investing. Clients may obtain prospectuses and key investor information documents for ETFs from the applicable distributor or authorized participant, the exchange upon which an ETF is listed and/or from the applicable website of the applicable ETF issuer. The value of the investments and any accruing income may fall or rise. Any past performance, prediction or forecast is not indicative of future or likely performance. Any information on ETFs contained herein is provided strictly for illustrative purposes and should not be deemed an offer to sell or a solicitation of an offer to purchase units of any ETF either explicitly or implicitly. The opinions expressed are those of the authors and do not necessarily reflect the views of ETF issuers, any of their agents or their affiliates.

Citigroup Global Markets India Private Limited and/or its affiliates may have, from time to time, actual or beneficial ownership of 1% or more in the debt securities of the subject issuer.

Please be advised that pursuant to Executive Order 13959 as amended (the "Order"), U.S. persons are prohibited from investing in securities of any company determined by the United States Government to be the subject of the Order. This research is not intended to be used or relied upon in any way that could result in a violation of the Order. Investors are encouraged to rely upon their own legal counsel for advice on compliance with the Order and other economic sanctions programs administered and enforced by the Office of Foreign Assets Control of the U.S. Treasury Department.

This communication is directed at persons who are "Eligible Clients" as such term is defined in the Israeli Regulation of Investment Advice, Investment Marketing and Investment Portfolio Management law, 1995 (the "Advisory Law"). Within Israel, this communication is not intended for retail clients and Citi will not make such products or transactions available to retail clients. The presenter is not licensed as investment advisor or marketer by the Israeli Securities Authority ("ISA") and this communication does not constitute investment or marketing advice. The information contained herein may relate to matters that are not regulated by the ISA. Any securities which are the subject of this communication may not be offered or sold to any Israeli person except pursuant to an exemption from the Israeli public offering rules, including according to the Israeli Securities Law.

Citi Research generally disseminates its research to the Firm's global institutional and retail clients via both proprietary (e.g., Citi Velocity and Citi Personal Wealth Management) and non-proprietary electronic distribution platforms. Certain research may be disseminated only via the Firm's proprietary distribution platforms; however such research will not contain changes to earnings forecasts, target price, investment or risk rating or investment thesis or be otherwise inconsistent with the author's previously published research. Certain research is made available only to institutional investors to satisfy regulatory requirements. Individual Citi Research analysts may also opt to circulate published research to one or more clients by email; such email distribution is discretionary and is done only after the research has been disseminated. The level and types of services provided by Citi Research analysts to clients may vary depending on various factors such as the client's individual preferences as to the frequency and manner of receiving communications from analysts, the client's risk profile and investment focus and perspective (e.g. market-wide, sector specific, long term, short-term etc.), the size and scope of the overall client relationship with the Firm and legal and regulatory constraints.

Pursuant to Comissão de Valores Mobiliários Resolução 20 and ASIC Regulatory Guide 264, Citi is required to disclose whether a Citi related company or business has a commercial relationship with the subject company. Considering that Citi operates multiple businesses in more than 100 countries around the world, it is likely that Citi has a commercial relationship with the subject company.

Securities recommended, offered, or sold by the Firm: (i) are not insured by the Federal Deposit Insurance Corporation; (ii) are not deposits or other obligations of any insured depository institution (including Citibank); and (iii) are subject to investment risks, including the possible loss of the principal amount invested. The Product is for informational purposes only and is not intended as an offer or solicitation for the purchase or sale of a security. Any decision to purchase securities mentioned in the Product must take into account existing public information on such security or any registered prospectus. Although information has been obtained from and is based upon sources that the Firm believes to be reliable, we do not guarantee its accuracy and it may be incomplete and condensed. Note, however, that the Firm has taken all reasonable steps to determine the accuracy and completeness of the disclosures made in the Important Disclosures section of the Product. The Firm's research department has received assistance from the subject company(ies) referred to in this Product including, but not limited to, discussions with management of the subject company(ies). Firm policy prohibits research analysts from sending draft research to subject companies. However, it should be presumed that the author of the Product has had discussions with the subject company to ensure factual accuracy prior to publication. All opinions, projections and estimates constitute the judgment of the author as of the date of the Product and these, plus any other information contained in the Product, are subject to change without notice. Prices and availability of financial instruments also are subject to change without notice. Notwithstanding other departments within the Firm advising the companies discussed in this Product, information obtained in such role is not used in the preparation of the Product. Although Citi Research does not set a predetermined frequency for publication, if the Product is a fundamental equity or credit research report, it is the intention of Citi Research to provide research coverage of the covered issuers, including in response to news affecting the issuer. For non-fundamental research reports, Citi Research may not provide regular updates to the views, recommendations and facts included in the reports. Notwithstanding that Citi Research maintains coverage on, makes recommendations concerning or discusses issuers, Citi Research

may be periodically restricted from referencing certain issuers due to legal or policy reasons. Where a component of a published trade idea is subject to a restriction, the trade idea will be removed from any list of open trade ideas included in the Product. Upon the lifting of the restriction, the trade idea will either be re-instated in the open trade ideas list if the analyst continues to support it or it will be officially closed. Citi Research may provide different research products and services to different classes of customers (for example, based upon long-term or short-term investment horizons) that may lead to differing conclusions or recommendations that could impact the price of a security contrary to the recommendations in the alternative research product, provided that each is consistent with the rating system for each respective product.

Investing in non-U.S. securities, including ADRs, may entail certain risks. The securities of non-U.S. issuers may not be registered with, nor be subject to the reporting requirements of the U.S. Securities and Exchange Commission. There may be limited information available on foreign securities. Foreign companies are generally not subject to uniform audit and reporting standards, practices and requirements comparable to those in the U.S. Securities of some foreign companies may be less liquid and their prices more volatile than securities of comparable U.S. companies. In addition, exchange rate movements may have an adverse effect on the value of an investment in a foreign stock and its corresponding dividend payment for U.S. investors. Net dividends to ADR investors are estimated, using withholding tax rates conventions, deemed accurate, but investors are urged to consult their tax advisor for exact dividend computations. Investors who have received the Product from the Firm may be prohibited in certain states or other jurisdictions from purchasing securities mentioned in the Product from the Firm. Please ask your Financial Consultant for additional details. Citigroup Global Markets Inc. takes responsibility for the Product in the United States. Any orders by US investors resulting from the information contained in the Product may be placed only through Citigroup Global Markets Inc.

Important Disclosures for Bell Potter Customers: Bell Potter is making this Product available to its clients pursuant to an agreement with Citigroup Global Markets Australia Pty Limited. Neither Citigroup Global Markets Australia Pty Limited nor any of its affiliates has made any determination as to the suitability of the information provided herein and clients should consult with their Bell Potter financial advisor before making any investment decision.

The Citigroup legal entity that takes responsibility for the production of the Product is the legal entity which the first named author is employed by.

The Product is made available in **Australia** through Citigroup Global Markets Australia Pty Limited. (ABN 64 003 114 832 and AFSL No. 240992), participant of the ASX Group and regulated by the Australian Securities & Investments Commission. Citigroup Centre, 2 Park Street, Sydney, NSW 2000. Citigroup Global Markets Australia Pty Limited is not an Authorised Deposit-Taking Institution under the Banking Act 1959, nor is it regulated by the Australian Prudential Regulation Authority.

The Product is made available in **Brazil** by Citigroup Global Markets Brasil - CCTVM SA, which is regulated by CVM - Comissão de Valores Mobiliários ("CVM"), BACEN - Brazilian Central Bank, APIMEC - Associação dos Analistas e Profissionais de Investimento do Mercado de Capitais and ANBIMA - Associação Brasileira das Entidades dos Mercados Financeiro e de Capitais. Av. Paulista, 1111 - 14º andar(parte) - CEP: 01311920 - São Paulo - SP.

If the Product is being made available in certain provinces of **Canada** by Citigroup Global Markets (Canada) Inc. ("CGM Canada"), CGM Canada has approved the Product. Citigroup Place, 123 Front Street West, Suite 1100, Toronto, Ontario M5J 2M3.

This product is available in **Chile** through Banchile Corredores de Bolsa S.A., an indirect subsidiary of Citigroup Inc., which is regulated by the Superintendencia de Valores y Seguros. Agustinas 975, piso 2, Santiago, Chile.

The Product is made available in **Germany** by Citigroup Global Markets Europe AG ("CGME"), which is regulated by the German Federal Financial Supervisory Authority (Bundesanstalt für Finanzdienstleistungsaufsicht BaFin). CGME, Reuterweg 16, 60323 Frankfurt am Main.

Research which relates to "securities" (as defined in the Securities and Futures Ordinance (Cap. 571 of the Laws of Hong Kong)) is issued in **Hong Kong** by, or on behalf of, Citigroup Global Markets Asia Limited which takes full responsibility for its content. Citigroup Global Markets Asia Ltd. is regulated by Hong Kong Securities and Futures Commission. If the Research is made available through Citibank, N.A., Hong Kong Branch, for its clients in Citi Private Bank, it is made available by Citibank N.A.(organized under the laws of U.S. A. with limited liability), Champion Tower, 3 Garden Road, Hong Kong. Citibank N.A. is regulated by the Hong Kong Monetary Authority. Please contact your Private Banker in Citibank N.A., Hong Kong, Branch if you have any queries on or any matters arising from or in connection with this document.

The Product is made available in **India** by Citigroup Global Markets India Private Limited (CGM), which is regulated by the Securities and Exchange Board of India (SEBI), as a Research Analyst (SEBI Registration No. INH000000438). CGM is also actively involved in the business of merchant banking and stock brokerage in India, and is registered with SEBI in this regard. CGM's registered office is at 1202, 12th Floor, FIFC, G Block, Bandra Kurla Complex, Bandra East, Mumbai - 400098. CGM's Corporate Identity Number is U99999MH2000PTC126657, and its contact details are: Tel: +9102261759999 Fax: +9102261759961. The Investor Charter in respect of Research Analysts and Complaints information can be found at

https://www.citivelocity.com/cvr/eppublic/citi_research_disclosures

The Product is made available in **Indonesia** through PT Citigroup Securities Indonesia. 5/F, Citibank Tower, Bapindo Plaza, Jl. Jend. Sudirman Kav. 54-55, Jakarta 12190. Neither this Product nor any copy hereof may be distributed in Indonesia or to any Indonesian citizens wherever they are domiciled or to Indonesian residents except in compliance with applicable capital market laws and regulations. This Product is not an offer of securities in Indonesia. The securities referred to in this Product have not been registered with the Capital Market and Financial Institutions Supervisory Agency (BAPEPAM-LK) pursuant to relevant capital market laws and regulations, and may not be offered or sold within the territory of the Republic of Indonesia or to Indonesian citizens through a public offering or in circumstances which constitute an offer within the meaning of the Indonesian capital market laws and regulations.

The Product is made available in **Israel** through Citibank NA, regulated by the Bank of Israel and the Israeli Securities Authority. Citibank, N.A, Platinum Building, 21 Ha'arba'ah St, Tel Aviv, Israel.

The Product is made available in **Japan** by Citigroup Global Markets Japan Inc. ("CGMJ"), which is regulated by Financial Services Agency, Securities and Exchange Surveillance Commission, Japan Securities Dealers Association, Tokyo Stock Exchange and Osaka Securities Exchange. Otemachi Park Building, 1-1-1 Otemachi, Chiyoda-ku, Tokyo 100-8132 Japan. If the Product was distributed by SMBC Nikko Securities Inc. it is being so distributed under license. In the event that an error is found in an CGMJ research report, a revised version will be posted on the Firm's Citi Velocity website. If you have questions regarding Citi Velocity, please call (81 3) 6270-3019 for help.

The product is made available in the **Kingdom of Saudi Arabia** in accordance with Saudi laws through Citigroup Saudi Arabia, which is regulated by the Capital Market Authority (CMA) under CMA license (17184-31). 2239 Al Urubah Rd – Al Olaya Dist. Unit No. 18, Riyadh 12214 – 9597, Kingdom Of Saudi Arabia.

The Product is made available in **Korea** by Citigroup Global Markets Korea Securities Ltd., which is regulated by the Financial Services Commission, the Financial Supervisory Service and the Korea Financial Investment Association (KOFIA). Citibank Center, 50 Saemun-ro, Jongno-gu, Seoul 03184, Korea. KOFIA makes available registration information of research analysts on its website. Please visit the following website if you wish to find KOFIA registration information on research analysts of Citigroup Global Markets Korea Securities Ltd. <http://dis.kofia.or.kr/websquare/index.jsp?w2xPath=/wq/fundMgr/DISFundMgrAnalystList.xml&divisionId=MDIS03002002000000&serviceId=SDIS030020020000>. The Product is made available in Korea by Citibank Korea Inc., which is regulated by the Financial Services Commission and the Financial Supervisory Service. Address is Citibank Center, 50 Saemun-ro, Jongno-gu, Seoul 03184, Korea. This research report is intended to be provided only to Professional Investors as defined in the Financial Investment Services and Capital Market Act and its Enforcement Decree in Korea.

The Product is made available in **Malaysia** by Citigroup Global Markets Malaysia Sdn Bhd (Company No. 460819-D) ("CGMM") to its clients and CGMM takes responsibility for its contents. CGMM is regulated by the Securities Commission of Malaysia. Please contact CGMM at Level 43 Menara Citibank, 165 Jalan Ampang, 50450 Kuala Lumpur, Malaysia in respect of any matters arising from, or in connection with, the Product.

The Product is made available in **Mexico** by Citibanamex Casa de Bolsa, S.A. De C. V., Casa de Bolsa, Integrante del Grupo Financiero Citibanamex which is a wholly owned subsidiary of Citigroup Inc. and is regulated by Comision Nacional Bancaria y de Valores. Reforma 398, Col. Juarez, 06600 Mexico, D.F.

In **New Zealand** the Product is made available to 'wholesale clients' only as defined by s5C(1) of the Financial Advisers Act 2008 ('FAA') through Citigroup Global Markets Australia Pty Ltd (ABN 64 003 114 832 and AFSL No. 240992), an overseas financial adviser as defined by the FAA, participant of the ASX Group and regulated by the Australian Securities & Investments Commission. Citigroup Centre, 2 Park Street, Sydney, NSW 2000.

The Product is made available in **Pakistan** by Citibank N.A. Pakistan branch, which is regulated by the State Bank of Pakistan and Securities Exchange Commission, Pakistan. AWT Plaza, 1.1. Chundrigar Road, P.O. Box 4889, Karachi-74200.

The Product is made available in the **Philippines** through Citicorp Financial Services and Insurance Brokerage Philippines, Inc., which is regulated by the Philippines Securities and Exchange Commission. 20th Floor Citibank Square Bldg. The Product is made available in the Philippines through Citibank NA Philippines branch, Citibank Tower, 8741 Paseo De Roxas, Makati City, Manila. Citibank NA Philippines NA is regulated by The Bangko Sentral ng Pilipinas.

The Product is made available in **Poland** by Dom Maklerski Banku Handlowego SA an indirect subsidiary of Citigroup Inc., which is regulated by Komisja Nadzoru Finansowego. Dom Maklerski Banku Handlowego S.A. ul.Senatorska 16, 00-923 Warszawa.

The Product is made available in the **Russian Federation** through AO Citibank, which is licensed to carry out banking activities in the Russian Federation in accordance with the general banking license issued by the Central Bank of the Russian Federation and brokerage activities in accordance with the license issued by the Federal Service for Financial Markets. Neither the Product nor any information contained in the Product shall be considered as advertising the securities mentioned in this report within the territory of the Russian Federation or outside the Russian Federation. The Product does not constitute an appraisal within the meaning of the Federal Law of the Russian Federation of 29 July 1998 No. 135-FZ (as amended) On Appraisal Activities in the Russian Federation. 8-10 Gasheka Street, 125047 Moscow.

The Product is made available in **Singapore** through Citigroup Global Markets Singapore Pte. Ltd. ("CGMSPL"), a capital markets services license holder, and regulated by Monetary Authority of Singapore. Please contact CGMSPL at 8 Marina View, 21st Floor Asia Square Tower 1, Singapore 018960, in respect of any matters arising from, or in connection with, the analysis of this document. This report is intended for recipients who are accredited, expert and institutional investors as defined under the Securities and Futures Act (Cap. 289). The Product is made available by The Citigroup Private Bank in Singapore through Citibank, N.A., Singapore Branch, a licensed bank in Singapore that is regulated by Monetary Authority of Singapore. Please contact your Private Banker in Citibank N.A., Singapore Branch if you have any queries on or any matters arising from or in connection with this document. This report is intended for recipients who are accredited, expert and institutional investors as defined under the Securities and Futures Act (Cap. 289). This report is distributed in Singapore by Citibank Singapore Ltd ("CSL") to selected Citigold/Citigold Private Clients. CSL provides no independent research or analysis of the substance or in preparation of this report. Please contact your Citigold/Citigold Private Client Relationship Manager in CSL if you have any queries on or any matters arising from or in connection with this report. This report is intended for recipients who are accredited investors as defined under the Securities and Futures Act (Cap. 289).

Citigroup Global Markets (Pty) Ltd. is incorporated in the **Republic of South Africa** (company registration number 2000/025866/07) and its registered office is at 145 West Street, Sandton, 2196, Saxonwold. Citigroup Global Markets (Pty) Ltd. is regulated by JSE Securities Exchange South Africa, South African Reserve Bank and the Financial Services Board. The investments and services contained herein are not available to private customers in South Africa.

The Product is made available in the **Republic of China** through Citigroup Global Markets Taiwan Securities Company Ltd. ("CGMTS"), 14 and 15F, No. 1, Songzhi Road, Taipei 110, Taiwan, subject to the license scope and the applicable laws and regulations in the Republic of China. CGMTS is regulated by the Securities and Futures Bureau of the Financial Supervisory Commission of Taiwan, the Republic of China. No portion of the Product may be reproduced or quoted in the Republic of China by the press or any third parties [without the written authorization of CGMTS]. Pursuant to the applicable laws and regulations in the Republic of China, the recipient of the Product shall not take advantage of such Product to involve in any matters in which the recipient may have conflicts of interest. If the Product covers securities which are not allowed to be offered or traded in the Republic of China, neither the Product nor any information contained in the Product shall be considered as advertising the securities or making recommendation of the securities in the Republic of China. The Product is for informational purposes only and is not intended as an offer or solicitation for the purchase or sale of a security or financial products. Any decision to purchase securities or financial products mentioned in the Product must take into account existing public information on such security or the financial products or any registered prospectus.

The Product is made available in **Thailand** through Citicorp Securities (Thailand) Ltd., which is regulated by the Securities and Exchange Commission of Thailand. 399 Interchange 21 Building, 18th Floor, Sukhumvit Road, Klongtoey Nua, Wattana, Bangkok 10110, Thailand.

The Product is made available in **Turkey** through Citibank AS which is regulated by Capital Markets Board. Tekfen Tower, Eski Buyukdere Caddesi # 209 Kat 2B, 23294 Levent, Istanbul, Turkey.

In the **U.A.E.**, these materials (the "Materials") are communicated by Citigroup Global Markets Limited, DIFC branch ("CGML"), an entity registered in the Dubai International Financial Center ("DIFC") and licensed and regulated by the Dubai Financial Services Authority ("DFSA") to Professional Clients and Market Counterparties only and should not be relied upon or distributed to Retail Clients. A distribution of the different Citi Research ratings distribution, in percentage terms for Investments in each sector covered is made available on request. Financial products and/or services to which the Materials relate will only be made available to Professional Clients and Market Counterparties.

The Product is made available in **United Kingdom** by Citigroup Global Markets Limited, which is authorised by the Prudential Regulation Authority ("PRA") and regulated by the Financial Conduct Authority ("FCA") and the PRA. This material may relate to investments or services of a person outside of the UK or to other matters which are not authorised by the PRA nor regulated by the FCA and the PRA and further details as to where this may be the case are available upon request in respect of this material. Citigroup Centre, Canada Square, Canary Wharf, London, E14 5LB.

The Product is made available in **United States** by Citigroup Global Markets Inc, which is a member of FINRA and registered with the US Securities and Exchange Commission. 388 Greenwich Street, New York, NY 10013.

Unless specified to the contrary, within EU Member States, the Product is made available by Citigroup Global Markets Europe AG ("CGME"), which is regulated by the German Federal Financial Supervisory Authority (Bundesanstalt für Finanzdienstleistungsaufsicht-BaFin).

The Product is not to be construed as providing investment services in any jurisdiction where the provision of such services would not be permitted.

Subject to the nature and contents of the Product, the investments described therein are subject to fluctuations in price and/or value and investors may get back less than originally invested. Certain high-volatility investments can be subject to sudden and large falls in value that could equal or exceed the amount invested. The yield and average life of CMOs (collateralized mortgage obligations) referenced in this Product will fluctuate depending on the actual rate at which mortgage holders prepay the mortgages underlying the CMO and changes in current interest rates. Any government agency backing of the CMO applies only to the face value of the CMO and not to any premium paid. Certain investments contained in the Product may have tax implications for private customers whereby levels and basis of taxation may be subject to change. If in doubt, investors should seek advice from a tax adviser. The Product does not purport to identify the nature of the specific market or other risks associated with a particular transaction. Advice in the Product is general and should not be construed as personal advice given it has been prepared without taking account of the objectives, financial situation or needs of any particular investor. Accordingly, investors should, before acting on the advice, consider the appropriateness of the advice, having regard to their objectives, financial situation and needs. Prior to acquiring any financial product, it is the client's responsibility to obtain the relevant offer document for the product and consider it before making a decision as to whether to purchase the product.

Citi Research product may source data from dataCentral. dataCentral is a Citi Research proprietary database, which includes the Firm's estimates, data from company reports and feeds from Thomson Reuters. The source for all referenced prices, unless otherwise stated, is DataCentral. Past performance is not a guarantee or reliable indicator of future results. Forecasts are not a guarantee or reliable indicator of future performance. The printed and printable version of the research report may not include all the information (e.g. certain financial summary information and comparable company data) that is linked to the online version available on the Firm's proprietary electronic distribution platforms.

Card Insights. Where this report references Card Insights data, Card Insights consists of selected data from a subset of Citi's proprietary credit card transactions. Such data has undergone rigorous security protocols to keep all customer information confidential and secure; the data is highly aggregated and anonymized so that all unique customer identifiable information is removed from the data prior to receipt by the report's author or distribution to external parties. This data should be considered in the context of other economic indicators and publicly available information. Further, the selected data represents only a subset of Citi's proprietary credit card transactions due to the selection methodology or other limitations and should not be considered as indicative or predictive of the past or future financial performance of Citi or its credit card business.

Where included in this report, MSCI sourced information is the exclusive property of Morgan Stanley Capital International Inc. (MSCI). Without prior written permission of MSCI, this information and any other MSCI intellectual property may not be reproduced, disseminated or used to create any financial products, including any indices. This information is provided on an "as is" basis. The user assumes the entire risk of any use made of this information. MSCI, its affiliates and any third party involved in, or related to, computing or compiling the information hereby expressly disclaim all warranties of originality, accuracy, completeness, merchantability or fitness for a particular purpose with respect to any of this information. Without limiting any of the foregoing, in no event shall MSCI, any of its affiliates or any third party involved in, or related to, computing or compiling the information have any liability for any damages of any kind. MSCI, Morgan Stanley Capital International and the MSCI indexes are services marks of MSCI and its affiliates. Part of this product may contain Sustainalytics proprietary information that may not be reproduced, used, disseminated, modified nor published in any manner without the express written consent of Sustainalytics. Sustainalytics, its affiliates and any third party involved in, or related to, computing or compiling the information hereby expressly disclaim all warranties of originality, accuracy, completeness, merchantability or fitness for a particular purpose with respect to any of this information. Any information attributed to Sustainalytics is provided solely for informational purposes and on its own should not be considered an offer to buy or sell a security. Neither Sustainalytics nor all its third-party suppliers provide investment advice (as defined in the applicable jurisdiction) or any other form of (financial) advice. The information is provided "as is" and, therefore Sustainalytics assumes no responsibility for errors or omissions. Sustainalytics cannot be held liable for damage arising from the use of this product or information contained herein in any manner whatsoever. Where data is attributed to Morningstar that data is © 2020 Morningstar, Inc. All Rights Reserved. That information: (1) is proprietary to Morningstar and/or its content providers; (2) may not be copied or distributed; and (3) is not warranted to be accurate, complete or timely. Neither Morningstar nor its content providers are responsible for any damages or losses arising from any use of this information.

The Firm accepts no liability whatsoever for the actions of third parties. The Product may provide the addresses of, or contain hyperlinks to, websites. Except to the extent to which the Product refers to website material of the Firm, the Firm has not reviewed the linked site. Equally, except to the extent to which the Product refers to website material of the Firm, the Firm takes no responsibility for, and makes no representations or warranties whatsoever as to, the data and information contained therein. Such address or hyperlink (including addresses or hyperlinks to website material of the Firm) is provided solely for your convenience and information and the content of the linked site does not in any way form part of this document. Accessing such website or following such link through the Product or the website of the Firm shall be at your own risk and the Firm shall have no liability arising out of, or in connection with, any such referenced website.

© 2021 Citigroup Global Markets Inc. Citi Research is a division of Citigroup Global Markets Inc. Citi and Citi with Arc Design are trademarks and service marks of Citigroup Inc. and its affiliates and are used and registered throughout the world. All rights reserved. The research data in this report are not intended to be used for the purpose of (a) determining the price of or amounts due in respect of (or to value) one or more financial products or instruments and/or (b) measuring or comparing the performance of, or defining the asset allocation of a financial product, a portfolio of financial instruments, or a collective investment undertaking, and any such use is strictly prohibited without the prior written consent of Citi Research. Any unauthorized use, duplication, redistribution or disclosure of this report (the "Product"), including, but not limited to, redistribution of the Product by electronic mail, posting of the Product on a website or page, and/or providing to a third party a link to the Product, is prohibited by law and will result in prosecution. The information contained in the Product is intended solely for the recipient and may not be further distributed by the recipient to any third party.

ADDITIONAL INFORMATION IS AVAILABLE UPON REQUEST
