

BYD Company (1211 HK)

4Q22 beat; FY23E margins likely overestimated

BYD's 4Q22 earnings beat our expectation. We raise our FY23E net profit to RMB 18.9bn, or RMB 7,100 per vehicle to account for subsidy phase-out and stiffer competition. We believe consensus could underestimate the margin dent from the subsidy phase-out. We maintain HOLD given its fair valuation to us.

- **4Q22 earnings beat.** BYD announced preliminary FY22 net profit range of RMB 16-17bn on 30 Jan 2023, which implies 4Q22 net profit of RMB 6.7bn-7.7bn, stronger than our prior forecast. BYD's 4Q22 revenue of over RMB 152bn also exceeded our prior expectation, likely due to higher average selling prices. Our estimated net profit per vehicle (excl. BYDE (285 HK, HOLD)) rose slightly from RMB 9,869 in 3Q22 to RMB 9,932 in 4Q22.
- **FY23E consensus may underestimate the margin dent from subsidy phase-out.** We project BYD's FY23E sales volume to rise 31% YoY to 2.46mn units, outperforming our projection of China's total NEV sales volume growth of 27%, despite BYD's market leading position. Although some investors expect BYD to extend its strong sales growth, we believe both BYD's BEVs and PHEVs could face heightened competition from Tesla's price cuts and Chinese-brand PHEV launches. Our FY23E net profit estimates of RMB 18.9bn implies a net profit per vehicle excl. BYDE of about RMB 7,100 (vs. RMB 8,200 in FY22) amid subsidy phase-out. Our projected net profit per vehicle in FY23E would have been about RMB 13,100 if there was no subsidy change, or RMB 33.6bn for net profit (~100% YoY growth). For comparison, Tesla's (TSLA US, NR) 40% YoY sales volume growth in FY22 resulted in 128% YoY increase in net profit amid its superior operational efficiency.
- **Valuation/Key risks.** We raise our target price slightly from HK\$ 218 to HK\$ 230 based on sum-of-the-parts (SOTP) valuation (Figure 4), mainly because of forex change. We value HK\$ 180 per share for BYD's auto business, equivalent to 1.2x our FY23E NEV revenue, given the current P/S valuation of 1-2x for the NEV trio. We value HK\$ 25 and HK\$ 11 per share for BYD's battery and semiconductor segment, both based on 10x FY23E P/S on our estimated external EV battery revenue and external semiconductor sales, respectively. We value HK\$ 14 per share for BYD's handset business, based on BYDE's current market cap of HK\$ 61bn. Our target price is equivalent to 31x FY23E P/E, which is fair to us given that Tesla is now trading at 38x FY23E P/E. Key risks to our rating and target price include higher or lower NEV sales volume and margins, as well as sector re-rating or de-rating.

Earnings Summary

(YE 31 Dec)	FY20A	FY21A	FY22E	FY23E	FY24E
Revenue (RMB mn)	156,598	216,142	420,024	536,681	567,920
YoY growth (%)	22.6	38.0	94.3	27.8	5.8
Net income (RMB mn)	4,234	3,045	16,508	18,884	15,883
EPS (RMB)	1.47	1.06	5.67	6.49	5.46
YoY growth (%)	162.3	(28.1)	442.1	14.4	(15.9)
P/E (x)	141.2	196.5	36.7	32.1	38.1
P/B (x)	10.6	6.4	5.4	4.7	4.2
Yield (%)	0.2	0.1	0.3	0.3	0.3
ROE (%)	7.5	4.0	16.0	15.7	11.7
Net gearing (%)	25.9	Net cash	Net cash	Net cash	Net cash

Source: Company data, Bloomberg, CMBIGM estimates

HOLD (Maintain)

Target Price	HK\$ 230.00
(Previous TP	HK\$ 218.00)
Up/Downside	-4.0%
Current Price	HK\$ 239.60

China Auto Sector

SHI Ji, CFA

(852) 3761 8728
shiji@cmbi.com.hk

DOU Wenjing, CFA

(852) 6939 4751
douwenjing@cmbi.com.hk

Stock Data

Mkt Cap (HK\$ mn)	697,510
Avg 3 mths t/o (HK\$ mn)	1,908
52w High/Low (HK\$)	333.00/161.70
Total Issued Shares (mn)	2,911
Source: Bloomberg	

Shareholding Structure

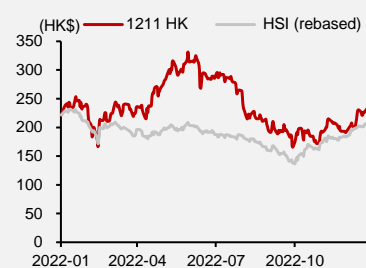
Wang Chuanfu	17.6%
Lv Xiangyang	8.2%
Others	74.1%
Source: HKEx	

Share Performance

	Absolute	Relative
1-mth	27.8%	13.1%
3-mth	34.1%	-12.7%
6-mth	-14.5%	-29.2%

Source: Bloomberg

12-mth Price Performance



Source: Bloomberg

Auditor: Ernst & Young

Figure 1: Quarterly results

RMB mn	1Q21	2Q21	3Q21	4Q21	1Q22	2Q22	3Q22	4Q22E	YoY	QoQ
Sales volume (units)	104,145	142,544	206,055	287,387	291,378	355,021	538,704	683,440	137.8%	26.9%
Revenue	40,992	49,894	54,307	70,950	66,825	83,782	117,081	152,336	114.7%	30.1%
Gross profit	5,163	6,438	7,238	9,306	8,287	12,054	22,199	27,279	193.1%	22.9%
R&D expenses	(1,217)	(1,778)	(2,238)	(2,757)	(2,361)	(3,064)	(5,446)	(6,730)	144.1%	23.6%
SG&A expenses	(2,410)	(2,649)	(2,983)	(3,750)	(3,680)	(4,713)	(7,372)	(8,343)	122.5%	13.2%
Operating profit	646	1,570	1,653	763	1,061	3,561	7,460	8,908	1067.2%	19.4%
Net profit	237	936	1,270	602	808	2,787	5,713	7,199	1095.8%	26.0%
Gross margin	12.6%	12.9%	13.3%	13.1%	12.4%	14.4%	19.0%	17.9%	4.8 ppt	-1.1 ppt
Operating margin	1.6%	3.1%	3.0%	1.1%	1.6%	4.3%	6.4%	5.8%	4.8 ppt	-0.5 ppt
Net margin	0.6%	1.9%	2.3%	0.8%	1.2%	3.3%	4.9%	4.7%	3.9 ppt	-0.2 ppt

Source: Company data, CMBIGM estimates

Figure 2: Earnings revision

RMB mn	New			Old			Diff (%)		
	FY22E	FY23E	FY24E	FY22E	FY23E	FY24E	FY22E	FY23E	FY24E
Revenue	420,024	536,681	567,920	380,351	463,394	481,459	10.4%	15.8%	18.0%
Gross Profit	69,819	83,132	80,767	56,766	64,162	63,739	23.0%	29.6%	26.7%
Operating Profit	20,990	23,608	20,246	16,615	15,992	12,966	26.3%	47.6%	56.1%
Net profit	16,508	18,884	15,883	13,290	12,870	10,149	24.2%	46.7%	56.5%
Gross Margin	16.6%	15.5%	14.2%	14.9%	13.8%	13.2%	1.7 ppt	1.6 ppt	1.0 ppt
Operating Margin	5.0%	4.4%	3.6%	4.4%	3.5%	2.7%	0.6 ppt	0.9 ppt	0.9 ppt
Net Margin	3.9%	3.5%	2.8%	3.5%	2.8%	2.1%	0.4 ppt	0.7 ppt	0.7 ppt

Source: CMBIGM estimates

Figure 3: CMBI estimates vs consensus

RMB mn	CMBIGM			Consensus			Diff (%)		
	FY22E	FY23E	FY24E	FY22E	FY23E	FY24E	FY21E	FY22E	FY23E
Revenue	420,024	536,681	567,920	400,115	562,411	690,975	5.0%	-4.6%	-17.8%
Gross Profit	69,819	83,132	80,767	59,465	89,142	114,847	17.4%	-6.7%	-29.7%
Operating Profit	20,990	23,608	20,246	19,903	29,667	42,657	5.5%	-20.4%	-52.5%
Net profit	16,508	18,884	15,883	14,264	22,732	31,168	15.7%	-16.9%	-49.0%
Gross Margin	16.6%	15.5%	14.2%	14.9%	15.9%	16.6%	1.8 ppt	-0.4 ppt	-2.4 ppt
Operating Margin	5.0%	4.4%	3.6%	5.0%	5.3%	6.2%	0.0 ppt	-0.9 ppt	-2.6 ppt
Net Margin	3.9%	3.5%	2.8%	3.6%	4.0%	4.5%	0.4 ppt	-0.5 ppt	-1.7 ppt

Source: Bloomberg, CMBIGM estimates

Figure 4: SOTP valuation table

Segment	Estimated Revenue of FY23E (RMB mn)	Target P/S Multiple	Target Market Cap (HK\$ mn)	Target Price (HK\$)
NEV	386,498	1.2x	534,295	180
External sales of EV battery	6,385	10x	73,551	25
Handset			61,175	14
External sales of semiconductor	3,000	10x	33,523	11
SOTP			702,543	230

Source: CMBIGM estimates

Financial Summary

Income statement

YE 31 Dec (RMB mn)	FY20A	FY21A	FY22E	FY23E	FY24E
Revenue	156,598	216,142	420,024	536,681	567,920
Cost of sales	(126,251)	(187,998)	(350,205)	(453,549)	(487,153)
Gross profit	30,346	28,145	69,819	83,132	80,767
Selling exp.	(5,056)	(6,082)	(14,220)	(17,433)	(17,932)
Admin exp.	(4,321)	(5,710)	(9,889)	(12,499)	(13,654)
R&D exp.	(7,465)	(7,991)	(17,600)	(19,360)	(18,700)
Others	(6,419)	(3,730)	(7,121)	(10,232)	(10,235)
Operating profit	7,086	4,632	20,990	23,608	20,246
Non-operating income	282	338	340	300	300
Non-operating expenses	(485)	(452)	(430)	(450)	(450)
Pre-tax profit	6,883	4,518	20,900	23,458	20,096
Tax	(869)	(551)	(3,390)	(3,468)	(2,951)
Minority interests	(1,780)	(922)	(1,003)	(1,106)	(1,262)
Net profit	4,234	3,045	16,508	18,884	15,883

Cash flow summary

YE 31 Dec (RMB mn)	FY20A	FY21A	FY22E	FY23E	FY24E
Profit before taxation	6,883	4,518	20,900	23,458	20,096
Depreciation/amortization	12,519	14,108	16,042	18,213	20,151
Change in working capital	21,399	44,083	(14,878)	7,886	6,041
Others	4,592	2,757	1,352	(10)	462
Net cash from operating	45,393	65,467	23,417	49,546	46,750
Capex	(11,774)	(37,344)	(25,930)	(25,170)	(23,830)
Others	(2,670)	(8,060)	(900)	(990)	(990)
Net cash from investing	(14,444)	(45,404)	(26,830)	(26,160)	(24,820)
Share issuance	-	37,314	-	-	-
Net borrowings	(24,490)	(17,006)	(11,051)	(9,888)	(1,000)
Others	(4,418)	(4,245)	(1,255)	(3,148)	(3,111)
Net cash from financing	(28,907)	16,063	(12,307)	(13,036)	(4,111)
Net change in cash	2,041	36,125	(15,720)	10,350	17,820
Cash at beginning of the year	11,674	13,738	49,820	34,100	44,450
Exchange difference	23	(44)	-	-	-
Cash at the end of the year	13,738	49,820	34,100	44,450	62,270

Balance sheet

YE 31 Dec (RMB mn)	FY20A	FY21A	FY22E	FY23E	FY24E
Current assets	111,605	166,110	226,486	290,592	323,520
Cash & equivalents	14,445	50,457	35,000	45,450	63,270
Account receivables	50,079	44,994	83,142	106,234	112,417
Inventories	31,396	43,355	76,757	101,893	109,443
Other current assets	15,685	27,304	31,587	37,015	38,390
Non-current assets	89,412	129,670	141,976	151,292	156,729
PP&E	54,585	61,221	68,708	73,644	75,180
Intangibles	11,870	17,171	19,731	20,334	20,155
Investment in JVs&assos	5,466	7,905	8,975	10,285	11,595
Other non-current assets	17,492	43,373	44,562	47,030	49,799
Total assets	201,017	295,780	368,462	441,885	480,249
Current liabilities	106,431	171,304	228,161	284,134	308,164
Bank borrowings	16,401	10,204	7,888	-	-
Account payables	42,983	73,160	115,136	149,112	160,160
Contract Liabilities	8,193	14,934	19,189	24,852	6,006
Other current liabilities	38,854	73,006	85,948	110,170	141,998
Non-current liabilities	30,133	20,232	17,848	16,959	16,047
Bank borrowings	14,745	8,744	7,744	6,744	4,744
Bond payables	8,880	2,046	46	46	1,046
Other non-current liabilities	6,507	9,442	10,058	10,169	10,257
Total liabilities	136,563	191,536	246,009	301,092	324,211
Share capital	2,728	2,911	2,911	2,911	2,911
Reserves	53,052	92,159	108,461	125,794	139,889
Non-controlling interests	7,580	9,175	11,081	12,087	13,238
Shareholders' equity	56,874	95,070	111,372	128,705	142,800
Total equity and liabilities	201,017	295,780	368,462	441,885	480,249

Key ratios

YE 31 Dec	FY20A	FY21A	FY22E	FY23E	FY24E
Sales mix (%)					
Automobile	53.6	52.0	71.2	72.9	71.2
Handset	38.3	40.0	24.1	22.8	24.8
Battery & others	8.0	8.0	4.7	4.2	4.1
Growth (%)					
Revenue	22.6	38.0	94.3	27.8	5.8
Gross profit	45.8	(7.3)	148.1	19.1	(2.8)
Operating profit	206.4	(34.6)	353.2	12.5	(14.2)
Net profit	162.3	(28.1)	442.1	14.4	(15.9)
Profit & loss ratio (%)					
Gross margin	19.4	13.0	16.6	15.5	14.2
Operating margin	4.5	2.1	5.0	4.4	3.6
Net profit margin	2.7	1.4	3.9	3.5	2.8
Balance sheet ratio					
Net cash/total equity (x)	(0.3)	0.3	0.2	0.3	0.4
Current ratio (x)	1.0	1.0	1.0	1.0	1.0
Receivable turnover days	136	94	85	85	85
Inventory turnover days	91	84	80	82	82
Payable turnover days	150	156	150	150	150
Profitability (%)					
ROE	7.5	4.0	16.0	15.7	11.7
ROA	2.1	1.2	5.0	4.7	3.4
Per share data (RMB)					
EPS	1.47	1.06	5.67	6.49	5.46
DPS	0.15	0.11	0.57	0.65	0.55

Source: Company data, CMBIGM estimates

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CMB International Global Markets Limited

Address: 45/F, Champion Tower, 3 Garden Road, Hong Kong, Tel: (852) 3900 0888 Fax: (852) 3900 0800

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