

# BYD Company (1211 HK)

## Fair valuation despite FY22 high earnings quality

BYD's high earnings quality in FY22 could provide room for FY23E profitability, especially as battery prices decline faster than expected. On the other hand, we think its earnings growth potential could be limited for the next 2-3 years given its market share now, which could make its current valuation fair.

- **Solid earnings in FY22 with heavy investments in R&D and PP&E.** BYD's FY22 net profit of RMB 16.6bn was in line with its previous profit alert. Its GPM for the auto segment was 0.7 ppt higher than our prior estimates. BYD only capitalized 8% of its total R&D investments of RMB 20.2bn in FY22, which makes its FY22 earnings as high quality, in our view. On the other hand, its PP&E more than doubled in one year to RMB 132bn as of end FY22, which could make its future depreciation a burden if its capacity utilization rate drops.
- **High earnings quality in FY22 provides room for FY23E profitability.** Such high earnings quality, coupled with declining battery raw-material prices, makes us a bit more positive on BYD's margin outlook. We raise our FY23E GPM forecast for the auto business by 1 ppt to 18.9%, or 1.5 ppts lower than that in FY22. We assume about 2/3 of the GPM dent from subsidy phase-out could be absorbed by BYD's greater economies of scale. We also revise up our FY23E sales volume forecast by 0.29mn units to 2.75mn units to account for its export boom. Accordingly, we raise our FY23E net profit estimates by 22% to RMB 22.9bn, or RMB 7,800 per vehicle (excl. BYDE's NP contribution).
- **Potential risks during rapid growth period.** BYD's current market share in China could mean limited upside potential for its earnings growth, in our view. Its vertically integrated supply chain, which brought huge advantage to BYD in the past three years, could be less helpful when the industry matures. In our opinion, overseas market would be key to BYD's next growth stage, which is still too early to tell.
- **Valuation/Key risks.** We maintain our HOLD rating and target price of HK\$ 230 based on 25x our revised FY23E. We think that P/E multiple should be a proper valuation method for BYD now given its current profitability. We are of the view that BYD's current P/E is fair, which is significantly higher than its Chinese traditional automakers (5-15x) but lower than Tesla's (TSLA US, NR) 40x. Our sum-of-the-parts (SOTP) valuation is also shown in Figure 4. 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    | FY22A    | FY23E    | FY24E    |
|---------------------|---------|----------|----------|----------|----------|
| Revenue (RMB mn)    | 156,598 | 216,142  | 424,061  | 589,423  | 631,784  |
| YoY growth (%)      | 22.6    | 38.0     | 96.2     | 39.0     | 7.2      |
| Net income (RMB mn) | 4,234   | 3,045    | 16,622   | 22,946   | 23,622   |
| EPS (RMB)           | 1.47    | 1.06     | 5.71     | 7.88     | 8.11     |
| YoY growth (%)      | 162.3   | (28.1)   | 445.9    | 38.0     | 2.9      |
| P/E (x)             | 128.5   | 178.5    | 33.1     | 24.0     | 23.3     |
| P/B (x)             | 9.7     | 5.8      | 5.0      | 4.2      | 3.7      |
| Yield (%)           | 0.2     | 0.1      | 0.6      | 0.8      | 0.8      |
| ROE (%)             | 7.5     | 4.0      | 16.1     | 19.0     | 16.8     |
| 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\$ 230.00) |
| Up/Downside   | +5.5%        |
| Current Price | HK\$ 218.00  |

### China Auto Sector

#### SHI Ji, CFA

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

#### DOU Wenjing, CFA

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

#### GU Sijie

jasongu@cmbi.com.hk

### Stock Data

|                          |               |
|--------------------------|---------------|
| Mkt Cap (HK\$ mn)        | 634,600       |
| Avg 3 mths t/o (HK\$ mn) | 1,842         |
| 52w High/Low (HK\$)      | 333.00/161.70 |
| Total Issued Shares (mn) | 2,911         |
| Source: Bloomberg        |               |

### Shareholding Structure

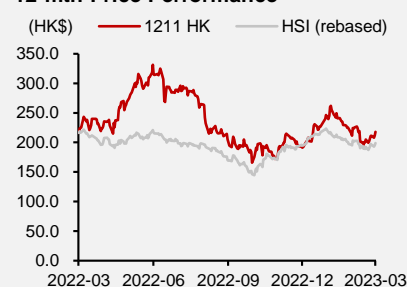
|              |       |
|--------------|-------|
| Wang Chuanfu | 17.6% |
| Lv Xiangyang | 8.2%  |
| Others       | 74.1% |
| Source: HKEx |       |

### Share Performance

|       | Absolute | Relative |
|-------|----------|----------|
| 1-mth | -2.9%    | -0.8%    |
| 3-mth | 14.1%    | 11.9%    |
| 6-mth | 8.6%     | -9.1%    |

Source: Bloomberg

### 12-mth Price Performance



Source: Bloomberg

### Auditor: Ernst & Young

### Related Reports

["BYD Company - 4Q22 beat: FY23E margins likely overestimated" - 31 Jan 2023](#)

Figure 1: Quarterly results

| RMB mn               | 1Q21    | 2Q21    | 3Q21    | 4Q21    | 1Q22    | 2Q22    | 3Q22    | 4Q22    | 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 | 156,373 | 120.4%  | 33.6%    |
| Gross profit         | 5,163   | 6,438   | 7,238   | 9,306   | 8,287   | 12,054  | 22,199  | 29,704  | 219.2%  | 33.8%    |
| R&D expenses         | (1,217) | (1,778) | (2,238) | (2,757) | (2,361) | (3,064) | (5,446) | (7,784) | 182.3%  | 42.9%    |
| SG&A expenses        | (2,410) | (2,649) | (2,983) | (3,750) | (3,680) | (4,713) | (7,372) | (9,302) | 148.1%  | 26.2%    |
| Operating profit     | 646     | 1,570   | 1,653   | 763     | 1,061   | 3,561   | 7,460   | 9,459   | 1139.4% | 26.8%    |
| Net profit           | 237     | 936     | 1,270   | 602     | 808     | 2,787   | 5,713   | 7,314   | 1114.8% | 28.0%    |
| Gross margin         | 12.6%   | 12.9%   | 13.3%   | 13.1%   | 12.4%   | 14.4%   | 19.0%   | 19.0%   | 5.9 ppt | 0.0 ppt  |
| Operating margin     | 1.6%    | 3.1%    | 3.0%    | 1.1%    | 1.6%    | 4.3%    | 6.4%    | 6.0%    | 5.0 ppt | -0.3 ppt |
| Net margin           | 0.6%    | 1.9%    | 2.3%    | 0.8%    | 1.2%    | 3.3%    | 4.9%    | 4.7%    | 3.8 ppt | -0.2 ppt |

Source: Company data, CMBIGM estimates

Figure 2: Earnings revision

| RMB mn           | FY22A   | New<br>FY23E | FY24E   | FY22E   | Old<br>FY23E | FY24E   | FY22A   | Diff (%)<br>FY23E | FY24E   |
|------------------|---------|--------------|---------|---------|--------------|---------|---------|-------------------|---------|
| Revenue          | 424,061 | 589,423      | 631,784 | 420,024 | 536,681      | 567,920 | 1.0%    | 9.8%              | 11.2%   |
| Gross Profit     | 72,245  | 99,177       | 101,057 | 69,819  | 83,132       | 80,767  | 3.5%    | 19.3%             | 25.1%   |
| Operating Profit | 21,542  | 29,009       | 30,130  | 20,990  | 23,608       | 20,246  | 2.6%    | 22.9%             | 48.8%   |
| Net profit       | 16,622  | 22,946       | 23,622  | 16,508  | 18,884       | 15,883  | 0.7%    | 21.5%             | 48.7%   |
| Gross Margin     | 17.0%   | 16.8%        | 16.0%   | 16.6%   | 15.5%        | 14.2%   | 0.4 ppt | 1.3 ppt           | 1.8 ppt |
| Operating Margin | 5.1%    | 4.9%         | 4.8%    | 5.0%    | 4.4%         | 3.6%    | 0.1 ppt | 0.5 ppt           | 1.2 ppt |
| Net Margin       | 3.9%    | 3.9%         | 3.7%    | 3.9%    | 3.5%         | 2.8%    | 0.0 ppt | 0.4 ppt           | 0.9 ppt |

Source: CMBIGM estimates

Figure 3: CMBI estimates vs consensus

| RMB mn           | FY22A   | CMBIGM<br>FY23E | FY24E   | FY22E   | Consensus<br>FY23E | FY24E   | FY22A    | Diff (%)<br>FY23E | FY24E    |
|------------------|---------|-----------------|---------|---------|--------------------|---------|----------|-------------------|----------|
| Revenue          | 424,061 | 589,423         | 631,784 | 407,868 | 571,904            | 713,160 | 4.0%     | 3.1%              | -11.4%   |
| Gross Profit     | 72,245  | 99,177          | 101,057 | 62,559  | 85,191             | 110,419 | 15.5%    | 16.4%             | -8.5%    |
| Operating Profit | 21,542  | 29,009          | 30,130  | 21,354  | 30,649             | 42,927  | 0.9%     | -5.4%             | -29.8%   |
| Net profit       | 16,622  | 22,946          | 23,622  | 15,513  | 23,585             | 33,347  | 7.2%     | -2.7%             | -29.2%   |
| Gross Margin     | 17.0%   | 16.8%           | 16.0%   | 15.3%   | 14.9%              | 15.5%   | 1.7 ppt  | 1.9 ppt           | 0.5 ppt  |
| Operating Margin | 5.1%    | 4.9%            | 4.8%    | 5.2%    | 5.4%               | 6.0%    | -0.2 ppt | -0.4 ppt          | -1.3 ppt |
| Net Margin       | 3.9%    | 3.9%            | 3.7%    | 3.8%    | 4.1%               | 4.7%    | 0.1 ppt  | -0.2 ppt          | -0.9 ppt |

Source: Bloomberg, CMBIGM estimates

Figure 4: SOTP valuation table

| Segment                         | Estimated Revenue of FY23E<br>(RMB mn) | Target P/S<br>Multiple | Target Market Cap<br>(HK\$ mn) | Target Price<br>(HK\$) |
|---------------------------------|--|------------------------|--------------------------------|------------------------|
| NEV                             | 431,742                                | 1.0x                   | 523,167                        | 180                    |
| External sales of EV battery    | 6,917                                  | 10x                    | 77,134                         | 26                     |
| Handset                         |  |                        | 33,338                         | 11                     |
| External sales of semiconductor | 8,000                                  | 4x                     | 36,890                         | 13                     |
| <b>SOTP</b>                     |  |                        | <b>670,529</b>                 | <b>230</b>             |

Source: CMBIGM estimates

## Financial Summary

### Income statement

| YE 31 Dec (RMB mn)      | FY20A          | FY21A          | FY22A          | FY23E          | FY24E          |
|-------------------------|----------------|----------------|----------------|----------------|----------------|
| <b>Revenue</b>          | <b>156,598</b> | <b>216,142</b> | <b>424,061</b> | <b>589,423</b> | <b>631,784</b> |
| Cost of sales           | (126,251)      | (187,998)      | (351,816)      | (490,246)      | (530,727)      |
| <b>Gross profit</b>     | <b>30,346</b>  | <b>28,145</b>  | <b>72,245</b>  | <b>99,177</b>  | <b>101,057</b> |
| Selling exp.            | (5,056)        | (6,082)        | (15,061)       | (21,704)       | (22,633)       |
| Admin exp.              | (4,321)        | (5,710)        | (10,007)       | (14,438)       | (15,973)       |
| R&D exp.                | (7,465)        | (7,991)        | (18,654)       | (24,300)       | (22,950)       |
| Others                  | (6,419)        | (3,730)        | (6,981)        | (9,726)        | (9,371)        |
| <b>Operating profit</b> | <b>7,086</b>   | <b>4,632</b>   | <b>21,542</b>  | <b>29,009</b>  | <b>30,130</b>  |
| Non-operating income    | 282            | 338            | 527            | 450            | 450            |
| Non-operating expenses  | (485)          | (452)          | (989)          | (800)          | (800)          |
| <b>Pre-tax profit</b>   | <b>6,883</b>   | <b>4,518</b>   | <b>21,080</b>  | <b>28,659</b>  | <b>29,780</b>  |
| Tax                     | (869)          | (551)          | (3,367)        | (4,472)        | (4,649)        |
| Minority interests      | (1,780)        | (922)          | (1,091)        | (1,241)        | (1,509)        |
| <b>Net profit</b>       | <b>4,234</b>   | <b>3,045</b>   | <b>16,622</b>  | <b>22,946</b>  | <b>23,622</b>  |

### Cash flow summary

| YE 31 Dec (RMB mn)                 | FY20A           | FY21A           | FY22A            | FY23E           | FY24E           |
|------------------------------------|-----------------|-----------------|------------------|-----------------|-----------------|
| <b>Profit before taxation</b>      | <b>6,883</b>    | <b>4,518</b>    | <b>21,080</b>    | <b>28,659</b>   | <b>29,780</b>   |
| Depreciation/amortization          | 12,519          | 14,108          | 20,370           | 29,846          | 36,913          |
| Change in working capital          | 21,399          | 44,083          | 97,849           | 36,470          | 11,769          |
| Others                             | 4,592           | 2,757           | 1,539            | (1,857)         | (1,196)         |
| <b>Net cash from operating</b>     | <b>45,393</b>   | <b>65,467</b>   | <b>140,838</b>   | <b>93,117</b>   | <b>77,266</b>   |
| Capex                              | (11,774)        | (37,344)        | (97,457)         | (75,950)        | (46,750)        |
| Others                             | (2,670)         | (8,060)         | (23,139)         | (1,060)         | (1,060)         |
| <b>Net cash from investing</b>     | <b>(14,444)</b> | <b>(45,404)</b> | <b>(120,596)</b> | <b>(77,010)</b> | <b>(47,810)</b> |
| Share issuance                     | -               | 37,314          | -                | -               | -               |
| Net borrowings                     | (24,490)        | (17,006)        | (16,413)         | (5,924)         | (1,000)         |
| Others                             | (4,418)         | (4,245)         | (3,076)          | (6,119)         | (6,498)         |
| <b>Net cash from financing</b>     | <b>(28,907)</b> | <b>16,063</b>   | <b>(19,489)</b>  | <b>(12,043)</b> | <b>(7,498)</b>  |
| <b>Net change in cash</b>          | <b>2,041</b>    | <b>36,125</b>   | <b>753</b>       | <b>4,065</b>    | <b>21,958</b>   |
| Cash at beginning of the year      | 11,674          | 13,738          | 49,820           | 51,182          | 55,247          |
| Exchange difference                | 23              | (44)            | 610              | -               | -               |
| <b>Cash at the end of the year</b> | <b>13,738</b>   | <b>49,820</b>   | <b>51,182</b>    | <b>55,247</b>   | <b>77,205</b>   |

### Balance sheet

| YE 31 Dec (RMB mn)                  | FY20A          | FY21A          | FY22A          | FY23E          | FY24E          |
|-------------------------------------|----------------|----------------|----------------|----------------|----------------|
| <b>Current assets</b>               | <b>111,605</b> | <b>166,110</b> | <b>240,804</b> | <b>290,980</b> | <b>332,690</b> |
| Cash & equivalents                  | 14,445         | 50,457         | 51,471         | 56,247         | 78,205         |
| Account receivables                 | 50,079         | 44,994         | 51,723         | 60,557         | 64,909         |
| Inventories                         | 31,396         | 43,355         | 79,107         | 107,451        | 119,232        |
| Other current assets                | 15,685         | 27,304         | 58,502         | 66,725         | 70,343         |
| <b>Non-current assets</b>           | <b>89,412</b>  | <b>129,670</b> | <b>253,057</b> | <b>304,581</b> | <b>317,842</b> |
| PP&E                                | 54,585         | 61,221         | 131,880        | 188,277        | 208,573        |
| Intangibles                         | 11,870         | 17,171         | 23,289         | 23,431         | 23,722         |
| Investment in JVs&assos             | 5,466          | 7,905          | 15,485         | 17,065         | 18,745         |
| Other non-current assets            | 17,492         | 43,373         | 82,402         | 75,808         | 66,801         |
| <b>Total assets</b>                 | <b>201,017</b> | <b>295,780</b> | <b>493,861</b> | <b>595,562</b> | <b>650,532</b> |
| <b>Current liabilities</b>          | <b>106,431</b> | <b>171,304</b> | <b>333,345</b> | <b>415,157</b> | <b>449,690</b> |
| Bank borrowings                     | 16,401         | 10,204         | 5,153          | -              | -              |
| Account payables                    | 42,983         | 73,160         | 140,437        | 191,397        | 207,202        |
| Contract Liabilities                | 8,193          | 14,934         | 35,517         | 40,294         | 8,724          |
| Other current liabilities           | 38,854         | 73,006         | 152,238        | 183,466        | 233,764        |
| <b>Non-current liabilities</b>      | <b>30,133</b>  | <b>20,232</b>  | <b>39,126</b>  | <b>38,146</b>  | <b>38,066</b>  |
| Bank borrowings                     | 14,745         | 8,744          | 7,594          | 6,594          | 4,594          |
| Bond payables                       | 8,880          | 2,046          | -              | -              | 1,000          |
| Other non-current liabilities       | 6,507          | 9,442          | 31,533         | 31,553         | 32,473         |
| <b>Total liabilities</b>            | <b>136,563</b> | <b>191,536</b> | <b>372,471</b> | <b>453,304</b> | <b>487,756</b> |
| Share capital                       | 2,728          | 2,911          | 2,911          | 2,911          | 2,911          |
| Reserves                            | 53,052         | 92,159         | 108,118        | 127,840        | 146,973        |
| Non-controlling interests           | 7,580          | 9,175          | 10,361         | 11,507         | 12,892         |
| <b>Shareholders' equity</b>         | <b>56,874</b>  | <b>95,070</b>  | <b>111,029</b> | <b>130,751</b> | <b>149,884</b> |
| <b>Total equity and liabilities</b> | <b>201,017</b> | <b>295,780</b> | <b>493,861</b> | <b>595,562</b> | <b>650,532</b> |

### Key ratios

| YE 31 Dec                          | FY20A | FY21A  | FY22A | FY23E | FY24E |
|------------------------------------|-------|--------|-------|-------|-------|
| <b>Sales mix (%)</b>               |       |        |       |       |       |
| Automobile                         | 53.6  | 52.0   | 76.6  | 74.9  | 73.1  |
| Handset                            | 38.3  | 40.0   | 23.3  | 18.5  | 20.2  |
| Battery & others                   | 8.0   | 8.0    | 0.1   | 6.5   | 6.7   |
| <b>Growth (%)</b>                  |       |        |       |       |       |
| Revenue                            | 22.6  | 38.0   | 96.2  | 39.0  | 7.2   |
| Gross profit                       | 45.8  | (7.3)  | 156.7 | 37.3  | 1.9   |
| Operating profit                   | 206.4 | (34.6) | 365.1 | 34.7  | 3.9   |
| Net profit                         | 162.3 | (28.1) | 445.9 | 38.0  | 2.9   |
| <b>Profit &amp; loss ratio (%)</b> |       |        |       |       |       |
| Gross margin                       | 19.4  | 13.0   | 17.0  | 16.8  | 16.0  |
| Operating margin                   | 4.5   | 2.1    | 5.1   | 4.9   | 4.8   |
| Net profit margin                  | 2.7   | 1.4    | 3.9   | 3.9   | 3.7   |
| <b>Balance sheet ratio</b>         |       |        |       |       |       |
| Net cash/total equity (x)          | (0.6) | 0.2    | 0.3   | 0.3   | 0.4   |
| Current ratio (x)                  | 1.0   | 1.0    | 0.7   | 0.7   | 0.7   |
| Receivable turnover days           | 136   | 94     | 58    | 50    | 50    |
| Inventory turnover days            | 91    | 84     | 82    | 80    | 82    |
| Payable turnover days              | 150   | 156    | 149   | 150   | 150   |
| <b>Profitability (%)</b>           |       |        |       |       |       |
| ROE                                | 7.5   | 4.0    | 16.1  | 19.0  | 16.8  |
| ROA                                | 2.1   | 1.2    | 4.2   | 4.2   | 3.8   |
| <b>Per share data (RMB)</b>        |       |        |       |       |       |
| EPS                                | 1.47  | 1.06   | 5.71  | 7.88  | 8.11  |
| DPS                                | 0.15  | 0.11   | 1.14  | 1.58  | 1.62  |

Source: Company data, CMBIGM estimates

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|                       |   |
|-----------------------|---|
| <b>BUY</b>            | : Stock with potential return of over 15% over next 12 months                                       |
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| <b>NOT RATED</b>      | : Stock is not rated by CMBIGM  |
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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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