



Rating
Buy

Asia
China

Automobiles & Components

Company
CATL

Reuters 300750.SZ Bloomberg 300750 CH Exchange SHZ Ticker 300750

Date
24 August 2018

Results

Price at 23 Aug 2018 (CNY)	69.10
Price target - 12mth (CNY)	79.00
52-week range (CNY)	91.77 - 36.20
HANG SENG INDEX	27,790

Solid and steady 1H18 results; Buy

Strong 1H18 results; maintain buy on optimistic order outlook

CATL's 1H18 recurring net profit increased by 37% YoY, the mid-point of its previously issued profit alert. Both the battery system segment (revenue +35% YoY) and material segment (revenue +124% YoY) came in ahead of our expectation. Blended gross profit margin at 30.9% in 1H18 (vs. 2018E DBe at 30.2%) is also on track of our expectation of margin stabilization. We lift our 2018E-2020E earnings by 1%/8%/6% to factor in the battery contracts signed with auto OEM, and revise our target price to RMB79.0 accordingly. Buy maintained.

Positive signs from battery system segment

Battery system segment revenue came in at RMB7.2b, up 35% YoY with a gross profit margin of 32.7% in 1H18. The performance of battery segment is tracking slightly ahead of our expectation, mainly thanks to the economies of scale and CATL's component cost advantage. With several procurement orders signed with auto OEMs, we believe the company is well positioned to more than triple its battery production volume from 12.9GWh in 2017 to 43.4GWh in 2020E.

Battery material segment exhibits strong growth

Battery material segment recorded 1H18 revenue of RMB1.7b, up 124% YoY, which is well ahead of our expectation due to strong downstream demand. The NCM (Lithium Nickel Cobalt Manganese Oxide) precursors business also plays a critical role in CATL's cost control, as it helps the company to reduce certain variables regarding cathode material processing, and thus maintain high consistency level of its battery performance.

Lifting target price to RMB79.0 on battery contract wins; risks

We lift our 2018E - 2020E DBe earnings forecast by 1%/8%/6%, mainly to reflect a more positive revenue outlook and incremental battery contracts signed with overseas and domestic auto OEMs. Our valuation method is unchanged, based on 36x 2019E EPS against a recurring income growth at a 32% 3-year CAGR. Key risks: unexpected changes in EV demand and government's subsidy policy.

Forecasts and ratios

Year End Dec 31	2016A	2017A	2018E	2019E	2020E
Sales (CNYm)	14,879.0	19,996.9	27,241.2	38,192.9	46,877.7
Reported NPAT (CNYm)	2,851.8	3,878.0	3,512.1	4,769.6	6,174.7

Source: Deutsche Bank estimates, company data

Valuation & Risks

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Key changes

TP	72.20 to 79.00	↑	9.4%
Sales (FYE)	27,003 to 27,241	↑	0.9%
Op prof margin (FYE)	15.6 to 15.7	↑	0.1%
Net profit (FYE)	3,477.5 to 3,512.1	↑	1.0%

Source: Deutsche Bank

Key indicators (FY1)

ROE (%)	12.1
Net debt/equity (%)	-20.0
Book value/share (CNY)	15.45
Operating profit margin (%)	15.7

Source: Deutsche Bank

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Figure 1: CATL's summary of income statement

Rmb mn	2015	2016	2017	2018E	2019E	2020E	1Q18	2Q18	1H17	2H17	1H18	2H18E
Revenue	5,703	14,879	19,997	27,241	38,193	46,878	3,712	5,648	6,295	13,702	9,360	17,882
YoY	558%	161%	34%	36%	40%	23%	155%	17%			49%	31%
COGS	3,539	8,486	12,836	19,016	26,987	33,164	2,510	3,956	3,959	8,877	6,467	12,549
COGS	3,499	8,377	12,740	18,885	26,804	32,939	2,496	3,936	3,935	8,806	6,432	12,454
Surcharge tax	40	109	96	131	183	225	15	21	24	72	35	95
Gross profit	2,164	6,393	7,161	8,225	11,206	13,714	1,201	1,691	2,336	4,825	2,893	5,333
Gross profit margin	37.9%	43.0%	35.8%	30.2%	29.3%	29.3%	32.4%	29.9%	37.1%	35.2%	30.9%	29.8%
SG&A	951	2,784	3,752	4,567	6,021	6,874	713	1,056	1,474	2,278	1,769	2,798
SG&A as % of Revenue	16.7%	18.7%	18.8%	16.8%	15.8%	14.7%	19%	19%	23%	17%	19%	16%
Operating income	1,213	3,609	3,409	3,658	5,185	6,840	488	635	862	2,547	1,124	2,535
Operating profit margin	21.3%	24.3%	17.0%	13.4%	13.6%	14.6%	13.2%	11.2%	13.7%	18.6%	12.0%	14.2%
Other income / expense	(3)	(128)	1,482	605	637	781	55	19	1,473	9	74	531
EBIT	1,209	3,481	4,890	4,264	5,822	7,621	544	654	2,335	2,555	1,198	3,066
EBIT margin	21.2%	23.4%	24.5%	15.7%	15.2%	16.3%	14.7%	11.6%	37.1%	18.6%	12.8%	17.1%
D&A	189	779	1,355	2,160	3,071	3,560	441	540	509	846	981	1,179
EBITDA	1,398	4,260	6,245	6,424	8,893	11,182	985	1,193	2,844	3,401	2,179	4,245
EBITDA margin	24.5%	28.6%	31.2%	23.6%	23.3%	23.9%	26.5%	21.1%	45.2%	24.8%	23.3%	23.7%
Net finance cost	109	80	42	-127	-141	-98	3	(26)	48	(6)	(23)	(104)
PBT	1,100	3,400	4,848	4,391	5,963	7,719	541	680	2,287	2,561	1,221	3,170
Tax	149	482	654	592	804	1,041	72	79	312	342	151	442
Nominal effective tax rate	13.6%	14.2%	13.5%	13.5%	13.5%	13.5%	13.3%	11.6%	13.6%	13.4%	12.4%	13.9%
PAT	951	2,918	4,194	3,798	5,158	6,678	469	601	1,975	2,219	1,070	2,729
Minority interest	20	67	316	286	389	503	56	103	164	152	159	127
NPAT attributable to shareholders	931	2,852	3,878	3,512	4,770	6,175	413	498	1,811	2,067	911	2,601
YoY	1610%	206%	36%	-9%	36%	29%	NM	-73%			-50%	26%
Net profit margin	16.3%	19.2%	19.4%	12.9%	12.5%	13.2%	11.1%	8.8%	28.8%	15.1%	9.7%	14.5%
Disposal gain	(1)	(152)	960				(0)	(2)	1,036	(76)	(2)	2
Non-operating government grants	69	181	444	605	637	781	154	65	272	172	219	386
Investment income from WM products	14	48	354	-	-	-	16	21	219	135	37	(37)
Other non-operating income	(14)	7	16				1	4	6	10	5	(5)
minus: income tax impact	12	17	263	82	86	105	25	13	229	34	39	43
minus: minority interest impact	6	2	10				1	4	4	5	6	(6)
Recurring NPAT attributable to shareholder	880	2,786	2,376	2,988	4,219	5,499	269	428	511	1,865	697	2,291
YoY	NM	217%	-15%	26%	41%	30%	-296%	-38%			37%	23%
Recurring Net profit margin	15.4%	18.7%	11.9%	11.0%	11.0%	11.7%	7.2%	7.6%	8.1%	13.6%	7.4%	12.8%

Source: Company data, Deutsche Bank estimates

Figure 2: Key summary of CATL's operational and financial data

Key Summary		2014	2015	2016	2017	2018E	2019E	2020E
Effective Capacity	GWh	0.6	2.6	7.6	17.1	32.0	46.0	54.0
Sales	MWh	247	2,187	6,798	11,844	19,911	31,691	43,391
ASP	RMB/kWh	2.89	2.28	2.06	1.41	1.16	1.04	0.97
COGS	RMB/kWh	2.21	1.33	1.13	0.91	0.80	0.73	0.68
Sales	RMB mn	867	5,703	14,879	19,997	27,241	38,193	46,878
Battery sales	RMB mn	715	4,981	13,976	16,657	23,101	32,660	40,201
Gross profit	RMB mn	223	2,164	6,393	7,161	8,225	11,206	13,714
NPAT	RMB mn	54	931	2,852	3,878	3,512	4,770	6,175
GP Margin	%	25.7%	37.9%	43.0%	35.8%	30.2%	29.3%	29.3%
NP Margin	%	6.3%	16.3%	19.2%	19.4%	12.9%	12.5%	13.2%

Source: Company data, Deutsche Bank estimates

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Figure 3: Forecast changes for CATL

RMBm	2018E			2019E			2020E		
	New	Old	Change%	New	Old	Change%	New	Old	Change%
Revenue	27,241	27,003	1%	38,193	35,516	8%	46,878	44,803	5%
Gross profit	8,225	8,147	1%	11,206	10,363	8%	13,714	13,015	5%
Operating income	3,658	3,621	1%	5,185	4,764	9%	6,840	6,445	6%
Net profit	3,512	3,478	1%	4,770	4,397	8%	6,175	5,833	6%

Source: Deutsche Bank estimates

Figure 4: Deutsche Bank estimates vs. consensus for CATL

RMBm	2018E			2019E			2020E		
	DB estimates	Consensus	DBe/Cons.	DB estimates	Consensus	DBe/Cons.	DB estimates	Consensus	DBe/Cons.
Revenue	27,241	25,758	106%	38,193	34,993	109%	46,878	45,561	103%
Gross profit	8,225	8,086	102%	11,206	10,447	107%	13,714	13,172	104%
Operating income	3,658	3,843	95%	5,185	5,064	102%	6,840	6,700	102%
NP	3,512	3,140	112%	4,770	4,060	117%	6,175	5,357	115%

Source: Deutsche Bank estimates, Bloomberg Finance LP

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Model updated: 24 August 2018

Running the numbers

Asia

China

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Reuters: 300750.SZ Bloomberg: 300750 CH

Buy

Price (23 Aug 18) CNY 69.10

Target Price CNY 79.00

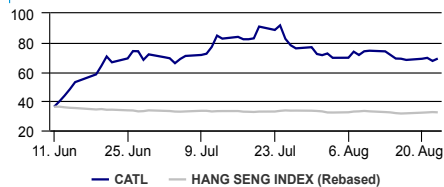
52 Week range CNY 36.20 - 91.77

Market cap (m) CNYm 150,115
USDm 21,854

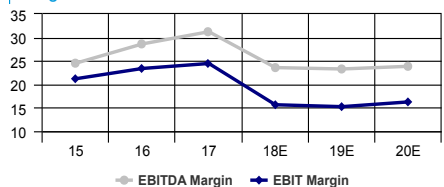
Company Profile

CATL operates as a battery products manufacturing company. The Company produces and sells power battery materials, energy storage battery materials, energy storage battery cells, battery systems, and other products. CATL also provides batteries recycling services.

Price Performance



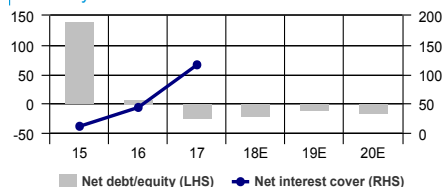
Margin Trends



Growth & Profitability



Solvency



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Fiscal year end 31-Dec

Financial Summary

	2015	2016	2017	2018E	2019E	2020E
DB EPS (CNY)	1.98	4.65	1.98	1.62	2.20	2.84
Reported EPS (CNY)	1.98	4.65	1.98	1.62	2.20	2.84
DPS (CNY)	0.15	0.09	0.04	0.00	0.00	0.00
BVPS (CNY)	2.7	25.3	12.6	15.5	17.6	20.5
Weighted average shares (m)	471	613	1,955	2,172	2,172	2,172
Average market cap (CNYm)	na	na	na	150,115	150,115	150,115
Enterprise value (CNYm)	na	na	na	145,048	148,088	145,969

Valuation Metrics

P/E (DB) (x)	na	na	na	42.7	31.5	24.3
P/E (Reported) (x)	na	na	na	42.7	31.5	24.3
P/BV (x)	0.00	0.00	0.00	4.47	3.92	3.37
FCF Yield (%)	na	na	na	nm	nm	1.7
Dividend Yield (%)	na	na	na	0.0	0.0	0.0
EV/Sales (x)	nm	nm	nm	5.3	3.9	3.1
EV/EBITDA (x)	nm	nm	nm	22.6	16.7	13.1
EV/EBIT (x)	nm	nm	nm	34.0	25.4	19.2

Income Statement (CNYm)

Sales revenue	5,703	14,879	19,997	27,241	38,193	46,878
Gross profit	2,164	6,393	7,161	8,225	11,206	13,714
EBITDA	1,398	4,260	6,245	6,424	8,893	11,182
Depreciation	189	779	1,355	2,160	3,071	3,560
Amortisation	0	0	0	0	0	0
EBIT	1,209	3,481	4,890	4,264	5,822	7,621
Net interest income/(expense)	-109	-80	-42	127	141	98
Associates/affiliates	0	0	0	0	0	0
Exceptionals/extraordinaries	0	0	0	0	0	0
Other pre-tax income/(expense)	0	0	0	0	0	0
Profit before tax	1,100	3,400	4,848	4,391	5,963	7,719
Income tax expense	149	482	654	592	804	1,041
Minorities	20	67	316	286	389	503
Other post-tax income/(expense)	0	0	0	0	0	0
Net profit	931	2,852	3,878	3,512	4,770	6,175
DB adjustments (including dilution)	0	0	0	0	0	0
DB Net profit	931	2,852	3,878	3,512	4,770	6,175

Cash Flow (CNYm)

Cash flow from operations	665	2,109	2,341	3,294	4,521	7,092
Net Capex	-1,554	-2,801	-7,180	-8,180	-7,172	-4,470
Free cash flow	-889	-692	-4,840	-4,886	-2,651	2,622
Equity raised/(bought back)	0	0	0	5,352	0	0
Dividends paid	-69	-54	-82	0	0	0
Net inc/(dec) in borrowings	202	993	3,055	1,200	1,100	1,100
Other investing/financing cash flows	1,219	402	5,490	0	0	0
Net cash flow	462	650	3,624	1,666	-1,551	3,722
Change in working capital	-537	-2,051	-2,203	-2,738	-3,820	-3,235

Balance Sheet (CNYm)

Cash and other liquid assets	1,293	2,457	14,081	15,747	14,196	17,917
Tangible fixed assets	2,419	5,513	11,719	17,225	21,091	21,790
Goodwill/intangible assets	603	722	1,509	2,023	2,258	2,469
Associates/investments	0	0	0	0	0	0
Other assets	4,358	19,897	22,354	28,516	37,466	44,526
Total assets	8,673	28,588	49,663	63,511	75,012	86,702
Interest bearing debt	3,398	3,650	7,423	8,623	9,723	10,823
Other liabilities	3,777	9,147	15,768	19,266	24,508	28,421
Total liabilities	7,175	12,797	23,192	27,889	34,231	39,244
Shareholders' equity	1,254	15,489	24,701	33,566	38,335	44,510
Minorities	245	302	1,770	2,056	2,445	2,948
Total shareholders' equity	1,498	15,791	26,471	35,622	40,780	47,458
Net debt	2,105	1,193	-6,658	-7,124	-4,472	-7,094

Key Company Metrics

Sales growth (%)	557.9	160.9	34.4	36.2	40.2	22.7
DB EPS growth (%)	626.7	135.1	-57.3	-18.5	35.8	29.5
EBITDA Margin (%)	24.5	28.6	31.2	23.6	23.3	23.9
EBIT Margin (%)	21.2	23.4	24.5	15.7	15.2	16.3
Payout ratio (%)	7.5	1.9	2.1	0.0	0.0	0.0
ROE (%)	123.2	34.1	19.3	12.1	13.3	14.9
Capex/sales (%)	27.2	18.8	35.9	30.0	18.8	9.5
Capex/depreciation (x)	8.2	3.6	5.3	3.8	2.3	1.3
Net debt/equity (%)	140.5	7.6	-25.2	-20.0	-11.0	-14.9
Net interest cover (x)	11.1	43.3	116.0	nm	nm	nm

Source: Company data, Deutsche Bank estimates

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Appendix 1

Important Disclosures

*Other information available upon request

Disclosure checklist

Company	Ticker	Recent price*	Disclosure
CATL	300750.SZ	69.10 (CNY) 23 Aug 2018	NA

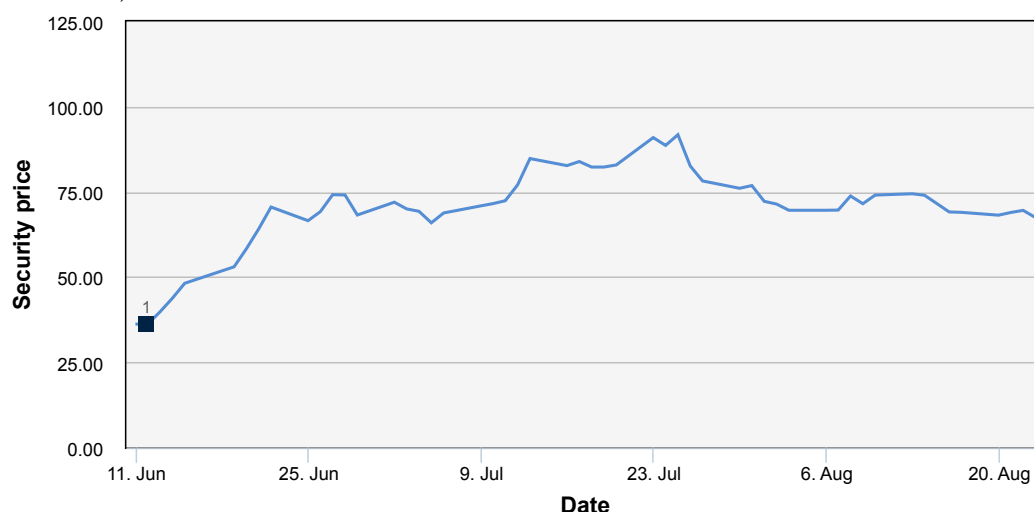
*Prices are current as of the end of the previous trading session unless otherwise indicated and are sourced from local exchanges via Reuters, Bloomberg and other vendors. Other information is sourced from Deutsche Bank, subject companies, and other sources. For disclosures pertaining to recommendations or estimates made on securities other than the primary subject of this research, please see the most recently published company report or visit our global disclosure look-up page on our website at <https://research.db.com/Research/Disclosures/CompanySearch>. Aside from within this report, important risk and conflict disclosures can also be found at <https://research.db.com/Research/Topics/Equities?topicId=RB0002>. Investors are strongly encouraged to review this information before investing.

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Historical recommendations and target price. CATL (300750.SZ)

(as of 08/23/2018)



Current Recommendations

Buy
Hold
Sell
Not Rated
Suspended Rating

** Analyst is no longer at Deutsche Bank

1. 06/12/2018 Buy, Target Price Change CNY 72.20 Neil Sun

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Equity Rating Key

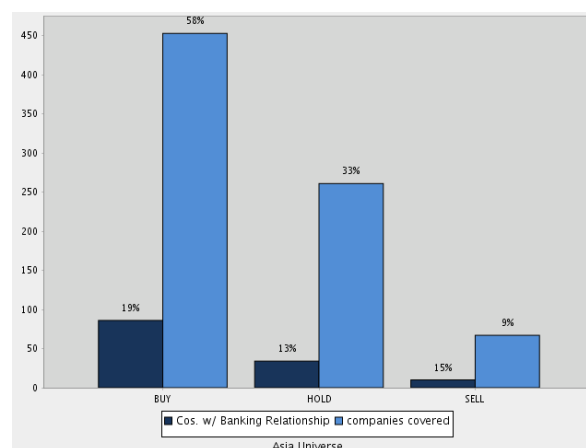
Buy: Based on a current 12- month view of total share-holder return (TSR = percentage change in share price from current price to projected target price plus pro-jected dividend yield) , we recommend that investors buy the stock.

Sell: Based on a current 12-month view of total share-holder return, we recommend that investors sell the stock.

Hold: We take a neutral view on the stock 12-months out and, based on this time horizon, do not recommend either a Buy or Sell.

Newly issued research recommendations and target prices supersede previously published research.

Equity rating dispersion and banking relationships



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Macroeconomic fluctuations often account for most of the risks associated with exposures to instruments that promise to pay fixed or variable interest rates. For an investor who is long fixed-rate instruments (thus receiving these cash flows), increases in interest rates naturally lift the discount factors applied to the expected cash flows and thus cause a loss. The longer the maturity of a certain cash flow and the higher the move in the discount factor, the higher will be the loss. Upside surprises in inflation, fiscal funding needs, and FX depreciation rates are among the most common adverse macroeconomic shocks to receivers. But counterparty exposure, issuer creditworthiness, client segmentation, regulation (including changes in assets holding limits for different types of investors), changes in tax policies, currency convertibility (which may constrain currency conversion, repatriation of profits and/or liquidation of positions), and settlement issues related to local clearing houses are also important risk factors. The sensitivity of fixed-income instruments to macroeconomic shocks may be mitigated by indexing the contracted cash flows to inflation, to FX depreciation, or to specified interest rates – these are common in emerging markets. The index fixings may – by construction – lag or mis-measure the actual move in the underlying variables they are intended to track. The choice of the proper fixing (or metric) is particularly important in swaps markets, where floating coupon rates (i.e., coupons indexed to a typically short-dated interest rate reference index) are exchanged for fixed coupons. Funding in a currency that differs from the currency in which coupons are denominated carries FX risk. Options on swaps (swaptions) the risks typical to options in addition to the risks related to rates movements.

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