

INITIATE COVERAGE

Baidu Inc (9888 HK)

Search Giant Transforming To Leader In AI+Smart Driving

Baidu ranked No. 1 in China's AI cloud service industry in 2021 on the back of its leading AI technologies, according to IDC. We like Baidu's unique position in the AI+cloud industry and its leading intelligent driving business unit, which are expected to unlock stock value in the medium to long term, along with a gradual recovery in Baidu's core advertising business. Initiate coverage with BUY. Target price: HK\$151.00.

- **Baidu AI Cloud leads above-industry growth.** Buoyed by higher margins, Baidu Inc's (Baidu) AI cloud business, Baidu AI Cloud, achieved above-industry revenue growth of 64%/40% in 2021/2H22 vs the industry's 35%/9%. We like the unique value proposition of Baidu AI Cloud with its unique focus on the public sector while peers focus instead on the internet industry which is plagued by slowing growth. Baidu also offers increasingly standardised solutions in some industries to drive gradual margin expansion. We expect Baidu to further leverage its AI technology and grow its cloud revenue by 30%/38% yoy in 2022/2023, benefitting from a rise in enterprise multi-cloud penetration.

- **Apollo in leading position from technology perspective.** Apollo is Baidu's autonomous driving (AD) platform. In China, Apollo is the leader in self driving, high definition maps, automated valet parking and autopilot navigation system. It has ample commercialisation opportunities and will be Baidu's main revenue driver in the medium to long term. Apollo will continue to expand its AD software market share going forward. As of 2Q22, Apollo had a Rmb1b OEM order backlog from automakers such as BYD Auto (BYD) and Dongfeng Motor Corporation (DFM). Most of the revenue will be recognised after the vehicles are shipped out, potentially 12-18 months after the contract signing. Thus, we expect to see meaningful revenue contribution (of 6-11%) from Apollo in 2023-24.

- **Gradual recovery in advertising revenue.** Baidu has been proactively restructuring and has reduced its reliance on the advertising business in recent years. The advertising business' contribution to total revenue decreased from 68.0% in 2019 to 61.8% in 2021. In the medium to longer term, we foresee 5% growth in advertising revenue with further monetisation driven by enriched content and value creation for its users, but are cautious due to market share loss. We forecast core online marketing services growth of -5%/10% yoy for Baidu in 2022/2023 but with sustained operating margin of as high as 40%.

- **We use SOTP methodology to derive our target price of HK\$151.00,** implying 1.8x 2023F PS, 17x 2023F PE and 0.7x PEG ratio. We forecast revenue growth of 18% CAGR and non-GAAP operating margin of 16.5-19.8% in 2023-26, to reflect increasing operating efficiency across all business units and improved economies of scale, leading to an EPS CAGR of 26%.

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KEY FINANCIALS

Year to 31 Dec (Rmbm)	2020	2021	2022F	2023F	2024F
Net turnover	107,074	124,493	126,547	142,733	166,315
EBITDA	20,111	16,402	18,811	26,906	34,932
Operating profit	14,340	10,518	12,353	20,126	27,813
Net profit (rep./act.)	19,026	7,591	8,179	16,156	22,639
Net profit (adj.)	22,020	18,830	18,685	23,440	30,542
EPS (Fen)	796.9	676.7	668.6	830.5	1,071.4
PE (x)	9.1	10.7	10.8	8.7	6.8
P/B (x)	1.1	0.9	0.9	0.8	0.7
EV/EBITDA (x)	7.7	9.4	8.2	5.8	4.4
Dividend yield (%)	0.0	0.0	0.0	0.0	0.0
Net margin (%)	17.8	6.1	6.5	11.3	13.6
Net debt/(cash) to equity (%)	(18.3)	(20.6)	(22.9)	(28.6)	(35.0)
ROE (%)	11.0	3.9	3.7	6.7	8.4
Consensus net profit	-	-	18,844	22,075	26,596
UOBKH/Consensus (x)	-	-	0.99	1.06	1.15

Source: Baidu, Class A, Bloomberg, UOB Kay Hian

BUY

Share Price	HK\$78.30
Target Price	HK\$151.00
Upside	+92.8%

COMPANY DESCRIPTION

Baidu Inc is a leading internet company that offers algorithmic search, enterprise search, news, voice assistance, online storage and navigation services.

STOCK DATA

GICS sector	Communication Services
Bloomberg ticker:	9888 HK
Shares issued (m):	2,205.1
Market cap (HK\$m):	216,452.8
Market cap (US\$m):	27,575.7
3-mth avg daily t'over (US\$m):	90.3
Price Performance (%)	

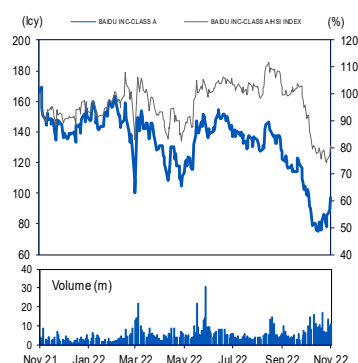
52-week high/low HK\$169.70/HK\$75.10

1mth	3mth	6mth	1yr	YTD
(32.6)	(39.8)	(28.5)	(51.5)	(45.9)

Major Shareholders

BBH & CO	5
Vanguard Group Inc	3.95
BackRock Inc	3.83
FY22 NAV/Share (Rmb)	82.49
FY22 Net Cash/Share (Rmb)	19.46

PRICE CHART



Source: Bloomberg

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STOCK IMPACT

- **Baidu AI Cloud ranked No.1 domestically in 2021** on the back of its leading AI technologies such as natural language processing (NLP), intelligent speech, automatic value and deep learning, according to research and consulting firm IDC. Baidu first ventured into the AI industry in 2010 and has the first-mover advantage in core AI technology. Having successfully seized the AI+cloud opportunity, Baidu AI Cloud empowers selected industries with its differentiated products. Its gradual margin expansion and revenue growth of 64%/40% beat the industry's 35%/9% in 2021/2H22 respectively, driven by its differentiated and standardised solutions in selected industries. We expect Baidu to further leverage its technologies and services and to deliver over 30% yoy growth in cloud revenue in 2022, benefitting from an increase in enterprise multi-cloud penetration.
- **Apollo is leading, from a technology perspective**, in the fields of self-driving, high definition maps, Apollo valet parking and Apollo navigation pilot. We also expect Baidu's new electric vehicle (EV) business to benefit from the synergy with Apollo and to capture a meaningful position in the EV space. We see ample commercialisation opportunities for Apollo which will be Baidu's main revenue driver in the medium to long term. Apollo will continue to gain AD software market share going forward. As of 2Q22, Apollo had Rmb1b OEM order backlog from automakers such as BYD and DFM. Most of the revenue will be recognised after the vehicles are shipped out, potentially 12-18 months after the contract signing. Thus, we expect meaningful revenue contribution from the Apollo self-driving segment starting from late-23 to 2024.
- In addition, Baidu has an auto-related JV with Zhejiang Geely Holding Group Co, a Chinese manufacturer of EVs. The JV, Jidu, unveiled its first concept car, ROBO-01, on 8 Jun 22, targeting the mid-range to high-end market.
- **Gradual recovery in advertising revenue.** Baidu has been proactively restructuring and has reduced its reliance on the advertising business over the past few years. The advertising business' contribution to total revenue has been decreasing year by year, from 68.0% in 2019 to 61.8% in 2021. In the medium to longer term, we expect flattish growth amid further monetisation driven by enriched content and value creation for its users, but are cautious due to market share loss to new short-form video platforms. We forecast Baidu's core online marketing services revenue to slip 5% yoy in 3Q22 amid a volatile month-by-month recovery and to fall 5%/10% yoy in 2022/2023 but with sustained operating margin of as high as 40%.

EARNINGS REVISION/RISK

- **Key risks:** a) Slowdown in the advertising business due to the macro slump and the fierce competition in China's advertising industry, b) uncertain challenges from the AD segment and robotaxi launch, c) shrinking government budget, and d) the US ban on supply of high-end chips to Chinese tech giants.

VALUATION/RECOMMENDATION

- **We use SOTP methodology to derive our target price of HK\$151.00**, implying 1.8x 2023F PS, 17x 2023F PE and 0.7x PEG ratio against a 26% earnings CAGR over 2023-26. We forecast revenue growth of 18% CAGR and non-GAAP operating margin of 16.5-19.8% in 2023-26, to reflect the increasing operating efficiency across all business units and improved economies of scale, leading to an EPS CAGR of 26%. Baidu has been investing in growth initiatives which it believes its leading AI technology can empower, including: a) AI cloud, b) Xiaodu smart devices powered by the DuerOS smart assistant, c) AI chips, and d) intelligent driving. We expect the exciting developments of Baidu AI Cloud and Baidu Intelligent Driving (BID) to unlock significant shareholder value in the next 3-5 years. Note that the BID unit includes EVs and Apollo.

SHARE PRICE CATALYST

- **Key catalysts:** a) Continued market share expansion in the AI Cloud segment and AD segment, b) higher monetisation rates across all business units, c) increase in synergies between Baidu's core business and new initiatives.

PROFIT & LOSS

Year to 31 Dec (Rmbm)	2021	2022F	2023F	2024F
Net turnover	124,493	126,547	142,733	166,315
EBITDA	16,402	18,811	26,906	34,932
Deprec. & amort.	5,884	6,458	6,780	7,120
EBIT	10,518	12,353	20,126	27,813
Total other non-operating income	(1,090)	(3,110)	23	0
Associate contributions	(780)	(1,605)	(1,218)	(1,171)
Net interest income/(expense)	2,130	2,961	3,253	3,928
Pre-tax profit	10,778	10,599	22,185	30,570
Tax	(3,187)	(2,420)	(6,028)	(7,931)
Minorities	(2,635)	9	440	945
Net profit	7,591	8,179	16,156	22,639
Net profit (adj.)	18,830	18,685	23,440	30,542

BALANCE SHEET

Year to 31 Dec (Rmbm)	2021	2022F	2023F	2024F
Fixed assets	23,027	23,259	23,373	23,275
Other LT assets	143,692	137,305	142,726	147,420
LT debt	n.a.	n.a.	n.a.	n.a.
Cash/ST investment	47,671	55,229	75,630	103,459
Other current assets	165,644	166,970	170,544	175,161
Total assets	380,034	382,763	412,273	449,316
ST debt	4,168	3,016	3,016	3,016
Other current liabilities	70,320	57,470	61,631	65,530
Other LT liabilities	81,594	81,594	81,594	81,594
Shareholders' equity	211,459	228,190	253,539	286,682
Minority interest	7,148	7,148	7,148	7,148
Total liabilities & equity	380,034	382,763	412,273	449,316

CASH FLOW

Year to 31 Dec (Rmbm)	2021	2022F	2023F	2024F
Operating	20,122	24,709	36,181	44,440
Pre-tax profit	10,778	10,599	22,185	30,570
Tax	(3,187)	(2,420)	(6,028)	(7,931)
Deprec. & amort.	5,884	6,458	6,780	7,120
Working capital changes	(18,691)	(12,960)	(8,981)	(10,764)
Other operating cashflows	25,338	23,033	22,225	25,445
Investing	(31,444)	(16,334)	(16,116)	(16,945)
Capex (growth)	(10,896)	(9,915)	(11,403)	(13,113)
Others	(20,548)	(6,418)	(4,714)	(3,832)
Financing	23,396	(817)	335	335
Dividend payments	(6,562)	335	335	335
Issue of shares	(47,213)	335	335	335
Loan repayment	8,840	0	0	0
Others/interest paid	68,331	(1,487)	(335)	(335)
Net cash inflow (outflow)	12,074	7,558	20,400	27,830
Beginning cash & cash equivalent	36,540	47,671	55,229	75,630
Changes due to forex impact	(943)	0	0	0
Ending cash & cash equivalent	47,671	55,229	75,630	103,459

KEY METRICS

Year to 31 Dec (%)	2021	2022F	2023F	2024F
Profitability				
EBITDA margin	13.2	14.9	18.9	21.0
Pre-tax margin	8.7	8.4	15.5	18.4
Net margin	6.1	6.5	11.3	13.6
ROA	2.1	2.1	4.1	5.3
ROE	3.9	3.7	6.7	8.4
Growth				
Turnover	16.3	1.6	12.8	16.5
EBITDA	(18.4)	14.7	43.0	29.8
Pre-tax profit	(53.3)	(1.7)	109.3	37.8
Net profit	(60.1)	7.7	97.5	40.1
Net profit (adj.)	(14.5)	(0.8)	25.4	30.3
EPS	(15.1)	(1.2)	24.2	29.0
Leverage				
Debt to total capital	1.9	1.3	1.1	1.0
Debt to equity	2.0	1.3	1.2	1.1
Net debt/(cash) to equity	(20.6)	(22.9)	(28.6)	(35.0)

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