

# Baidu (BIDU US)

# Factoring into near-term pandemic impact but recovery is in sight

The first wave of pandemic infection and soft macro have impacted short-term revenue recovery trajectory of Baidu's ads business, and weighed on growth of cloud business, as it impacted project deployment and digitalisation spending budget of enterprises. But Baidu's advertising business is regaining recovery trajectory in January 2023 after pandemic impact wanes. Looking into 2023, Baidu's advertising business could recover along with macro environment, and its cloud revenue growth has the potential to reaccelerate, as Baidu cloud has established competitive advantage in verticals like smart transportation, manufacturing, energy & utilities and public services. Baidu's strategic move to cut cost and improve operating efficiency could aid a stable profitability of its Core business in 2023, in our view. Factoring into the pandemic impact, we cut 2022-2024E revenue by 1-3%, but lift our SOTP-based TP by 1% to US\$195.2 on better earnings outlook and increasing value in investment portfolio. BUY.

- Spring Festival travel season the next key to watch for ads recovery. We estimate Baidu Core's advertising revenue to decline 8.3% YoY in 4Q22 (3Q22: -3.6%) due to the first wave impact of COVID infection. With infection impact wanes, Baidu has noticed a consistent recovery trend of its ads business in Jan 2023, while the overall magnitude of recovery for ads business hinges on COVID infection after Spring Festival travel season. That said, recovery in advertising budget and sentiment could come along with the recovery in macro in 2023, and Baidu is poised to drive its ads business revenue back on growth track, aided by its enhanced mobile ecosystem, in our view. We forecast Baidu Core's ads revenue to grow 7% YoY in 2023E, following a 6.5% YoY drop in 2022.
- Margin improvement of Cloud business well on track. We forecast Baidu Cloud's revenue to decline 9% YoY to RMB4.8bn in 4Q22, owing to soft macro, delayed project deployment, and the reclassification impact of Apollo Self Driving (ASD) revenue. However, we are still expecting Baidu Cloud to achieve positive YoY rev growth in 4Q22 if excluding the reclassification impact of ASD. Baidu Cloud maintained its target to achieve better than industry average revenue growth in 2023 and to achieve a breakeven in 2024-2025. Baidu Cloud is prioritizing profitability over scale expansion, which could benefit its margin improvement in 2023, in our view.
- Cost control and operating efficiency improvement aids stable profitability. Overall, we forecast Baidu Core's revenue to decline 5.3% YoY to RMB24.6bn, and to record non-GAAP operating profit of RMB4.9bn in 4Q22E, translating into 19.8% OPM, up 1.1pp YoY. Baidu's strategic move to maintain prudent cost control and strive for operating efficiency improvement, as well as prioritizing profitability over scale expansion for its cloud business could aid stable non-GAAP OPM level in 2023E. We forecast non-GAAP OPM to improve to 21.6% in 2023E (2022: 21.5%).

## **Earnings Summary**

(YE 31 Dec)	FY20A	FY21A	FY22E	FY23E	FY24E
Revenue (RMB mn)	107,074	124,493	122,527	134,683	144,846
YoY growth (%)	(0.3)	16.3	(1.6)	9.9	7.5
Adjusted net profit (RMB mn)	22,020.0	18,830.0	20,341.5	22,041.4	24,192.7
EPS (Adjusted) (RMB)	63.93	53.53	57.26	61.43	66.76
Consensus EPS (RMB)			56.62	65.16	75.26
P/E (x)	13.1	42.3	53.2	20.0	17.8
ROE (%)	12.8	5.1	2.6	6.6	6.8
Source: Company data, Bloomber	g, CMBIGM es	stimates			

## **BUY (Maintain)**

 Target Price
 US\$195.20

 (Previous TP
 US\$192.80)

 Up/Downside
 49.4%

 Current Price
 US\$130.62

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### Stock Data

Mkt Cap (US\$ mn)	46,405.0
Avg 3 mths t/o (US\$ mn)	105.0
52w High/Low (US\$)	167.35/76.57
Total Issued Shares (mn)	355.3
Source: FactSet	

Shareholding Structure

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Robin Yanhong Li	16.5%
Source: HKEx	

## Share Performance

	Absolute	Relative
1-mth	16.0%	11.9%
3-mth	27.7%	24.0%
6-mth	-7.4%	-5.2%

Source: FactSet



Source: FactSet



## Changes in forecast and valuation

Figure 1: Baidu forecast revision

Current				Change (%)					
RMB bn	2022E	2023E	2024E	2022E	2023E	2024E	2022E	2023E	2024E
Revenue	122.5	134.7	144.8	124.3	137.7	149.8	-1.4%	-2.2%	-3.3%
Gross Profit	58.4	65.3	71.2	59.6	66.2	73.3	-2.0%	-1.3%	-2.8%
Non-GAAP net profit	20.3	22.0	24.2	20.3	20.5	24.1	0.0%	7.5%	0.5%
Gross Margin	47.7%	48.5%	49.2%	47.9%	48.1%	48.9%	-0.3 ppt	0.4 ppt	0.2 ppt
Non-GAAP net margin	16.6%	16.4%	16.7%	16.4%	14.9%	16.1%	0.2 ppt	1.5 ppt	0.6 ppt

Source: CMBIGM estimates

Figure 2: Baidu Core business segment forecast revision

	Current			Previous			Change (%)		
RMB bn	2022E	2023E	2024E	2022E	2023E	2024E	2022E	2023E	2024E
Revenue	94.4	104.3	112.8	96.6	107.8	118.3	-2.3%	-3.2%	-4.6%
Non-GAAP Gross Profit	52.4	58.1	62.9	54.0	59.6	65.7	-2.9%	-2.5%	-4.2%
Non-GAAP Operating Profit	20.3	22.6	24.5	20.2	20.7	23.7	0.7%	8.9%	3.2%
Non-GAAP net profit	19.9	21.0	22.8	19.9	19.8	23.0	0.2%	6.2%	-1.1%
Non-GAAP GPM	42.8%	43.2%	43.4%	43.4%	43.3%	43.9%	-0.6 ppt	-0.2 ppt	-0.4 ppt
Non-GAAP OPM	16.6%	16.7%	16.9%	16.2%	15.1%	15.8%	0.4 ppt	1.7 ppt	1.1 ppt
Non-GAAP NPM	16.3%	15.6%	15.7%	16.0%	14.3%	15.4%	0.3 ppt	1.2 ppt	0.4 ppt

Source: CMBIGM estimates

Figure 3: CMBIGM estimates vs Bloomberg consensus

	Current			Consensus			Diff (%)		
RMB bn	2022E	2023E	2024E	2022E	2023E	2024E	2022E	2023E	2024E
Revenue	122.5	134.7	144.8	124.0	136.6	150.3	-1.2%	-1.4%	-3.6%
Gross Profit	58.4	65.3	71.2	59.7	66.7	74.2	-2.1%	-2.1%	-4.0%
Non-GAAP net profit	20.3	22.0	24.2	20.3	22.1	26.3	0.4%	-0.3%	-8.0%
Gross Margin	47.7%	48.5%	49.2%	48.1%	48.8%	49.4%	-0.5 ppt	-0.3 ppt	-0.2 ppt
Non-GAAP net margin	16.6%	16.4%	16.7%	16.3%	16.2%	17.5%	0.3 ppt	0.2 ppt	-0.8 ppt

Source: Bloomberg, CMBIGM estimates

## SOTP valuation of US\$195.2 per ADS

Our SOTP-based target price is US\$195.2, which comprises, per ADS:

- 1) US\$59.1 (was US\$55.6) for Baidu Core (main business, excluding Apollo and Baidu Cloud, mainly including the core search and feed ads business), based on unchanged 7.0x 2023E non-GAAP PE, the lift in valuation is mainly due to a rise in non-GAAP net income forecast driven by potentially better-than-expected margin expansion for Baidu Core business:
- 2) US\$22.5 (was US\$23.8) for Apollo ASD, based on 2.0x 2030E revenue, and discounted back using a 13.0% WACC; the cut in valuation is mainly driven by slight cut in revenue forecast owing to fine tune of assumption for product average selling price.
- 3) US\$40.4 (was US\$45.1) for Baidu Cloud, based on unchanged 4.8x 2023E PS, inline with the target multiple that we are giving to its Chinese cloud peers, but is below the average of 5.6x (Fig.5) for overseas comparable companies because its cloud revenue is on a smaller scale; the cut in valuation is mainly driven by cut in revenue forecast due to soft macro environment which impacted enterprises' digitalization spending budget and first wave of pandemic infection which impacted project deployment;



- 4) US\$60.3 net cash;
- 5) US\$12.9 (was US\$6.4) for iQIYI and other investments, with a 30% holding discount applied to the share price of US\$18.4 as of market close on 18 January 2022.

Figure 4: Baidu: SOTP valuation

Segment	NOPAT (US\$mn)	Valuation method/multiple	Valuation (RMBmn)	Valuation (US\$mn)	Baidu's stake	Valuation of Baidu's stake (US\$mn)	USD/ADS	Valuation as % of total (%)
Core business and cash	າ							
Baidu core (ex- Apollo and Cloud)	3,030	7.0x 2023E PE	146,888	21,211	100.0	21,211	59.1	30.3
2) Apollo ASD			55,926	8,076	100.0	8,076	22.5	11.5
3) Baidu Cloud (ex- ASD)		4.8x 2023E PS	100,332	14,488	100.0	14,488	40.4	20.7
4) Net cash			149,911	21,648	100.0	21,648	60.3	30.9
Valuation of core business and cash						65,423	182.3	93.4
iQIYI and strategic inve	stment							
1) iQIYI		Market value	35,715	5,157	51.5	2,656	7.4	
2) Trip.com group		Market value	161,032	23,254	10.8	2,511	7.0	
3) Uxin		Market value	816	118	9.1	11	0.0	
4) HAND Enterprise Solutions		Market value	7,881	1,138	5.3	60	0.2	
5) Kuaishou		Market value	277,822	40,119	3.1	1,246	3.5	
6) Yusys Technologies		Market value	15,260	2,204	5.1	113	0.3	
Valuation of iQIYI and investments Valuation of iQIYI						6,597	18.4	
and investment (with 30% holding						4,618	12.9	
discount)								6.6
Total Baidu valuation (US\$mn)						70,042		
Number of ADS outstanding (mn) Valuation per ADS						359		
(US\$)						195.2		

Source: Company data, CMBIGM estimates

Note: 1) American depositary share (ADS); iQIYI (IQ US); Trip.com Group (TCOM US); Uxin (UXIN US); HAND Enterprise solution (300170 SH); Kuaishou (1024 HK); Yusys Technologies (300674 SH); 2) data as of market close on 18 January.

Our target price translates into 22.0/20.2x 2023/2024E PE on a non-GAAP basis, or 15.2/14.0x if excluding net cash. Our previous target price of US\$192.8 translated into 22.1x 2023E PE.

Figure 5: Cloud computing: peers valuation comps

Companies	Ticker	Price	Revenue growth (YoY%)				PS(x)	
		(US\$)	2022E	2023E	2024E	2022E	2023E	2024E
Microsoft	MSFT US	235.8	12.2	10.0	12.8	8.5	7.8	6.9
Google	GOOG US	91.8	(9.2)	7.9	15.0	5.1	4.7	4.1
Salesforce	CRM US	145.5	17.3	10.5	12.9	4.7	4.3	3.8
Average						6.1	5.6	4.9

Source: Bloomberg, CMBIGM Note: data as of 18 January 2022



## **Financial Summary**

INCOME STATEMENT	2019A	2020A	2021A	2022E	2023E	2024E
YE 31 Dec (RMB mn)						
Revenue	107,413	107,074	124,493	122,527	134,683	144,846
Cost of goods sold	(62,850)	(55,158)	(64,314)	(64,101)	(69,365)	(73,620)
Gross profit	44,563	51,916	60,179	58,426	65,318	71,226
Operating expenses	(38,256)	(37,576)	(49,661)	(43,367)	(46,733)	(49,806)
SG&A expense	(19,910)	(18,063)	(24,723)	(20,070)	(21,684)	(23,175)
R&D expense	(18,346)	(19,513)	(24,938)	(23,297)	(25,049)	(26,631)
Operating profit	6,307	14,340	10,518	15,059	18,585	21,420
Share of (losses)/profits of associates/JV	(1,254)	(2,248)	(932)	(1,637)	(369)	(1)
Adjusted EBITDA	18,416	27,504	24,914	28,453	32,109	35,324
Net Interest income/(expense)	3,100	2,255	2,130	3,297	2,773	3,292
Foreign exchange gain/loss	(33)	(660)	100	(1,196)	0	0
Other income/expense	(8,460)	9,403	(1,038)	(7,470)	0	0
Pre-tax profit	(340)	23,090	10,778	8,053	20,989	24,711
Income tax	(1,948)	(4,064)	(3,187)	(2,571)	(5,000)	(6,309)
After tax profit	(2,288)	19,026	7,591	5,482	15,989	18,403
Minority interest	(4,345)	(3,446)	(2,635)	(293)	454	757
Net profit	2,057	22,472	10,226	5,775	15,535	17,646
Adjusted net profit	18,182	22,020	18,830	20,342	22,041	24,193
BALANCE SHEET	2019A	2020A	2021A	2022E	2023E	2024E
YE 31 Dec (RMB mn)						
Current assets	165,562	183,342	213,315	212,374	240,992	271,126
Cash & equivalents	33,443	35,782	36,850	36,756	63,102	91,252
Restricted cash	996	758	10,821	10,821	10,821	10,821
Account receivables	7,416	8,668	9,981	9,064	9,963	10,715
Other current assets	123,707	138,134	155,663	155,734	157,106	158,339
Non-current assets	135,754	149,366	166,719	156,168	153,867	151,276
PP&E	18,311	17,508	23,027	17,302	16,330	15,092
Intangibles	7,887	8,457	8,947	4,121	2,792	1,439
Goodwill	18,250	22,248	22,605	22,605	22,605	22,605
Other non-current assets	91,306	101,153	112,140	112,140	112,140	112,140
Total assets	301,316	332,708	380,034	368,542	394,859	422,402
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Current liabilities	57,380	68,385	74,488	73,169	75,930	78,219
Short-term borrowings	2,618	3,016	4,168	4,168	4,168	4,168
Account payables	32,701	36,716	41,384	40,283	41,696	42,858
Other current liabilities	22,061	28,653	28,936	28,718	30,066	31,193
Non-current liabilities	71,121	72,480	81,594	66,504	65,773	64,220
Long-term borrowings	7,804	0	12,629	0	0	0
Bond payables	50,387	60,335	55,772	53,311	52,580	51,027
Obligations under finance leases	4,486	4,693	5,569	5,569	5,569	5,569
Deferred income	17	97	129	129	129	129
Other non-current liabilities	8,427	7,355	7,495	7,495	7,495	7,495
Total liabilities	128,501	140,865	156,082	139,673	141,703	142,439
Share capital	0	0	0	0	0	0
Capital surplus	38,714	47,213	47,548	47,883	48,218	48,553
Retained earnings	124,885	135,483	163,911	168,493	192,445	218,916
Other reserves	1,109	3,102	7,148	7,148	7,148	7,148
Total shareholders equity	164,708	185,798	218,607	223,524	247,811	274,617
Minority interest	8,107	6,045	5,345	5,345	5,345	5,345
Total equity and liabilities	301,316	332,708	380,034	368,541	394,859	422,402



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CASH FLOW	2019A	2020A	2021A	2022E	2023E	2024E
YE 31 Dec (RMB mn)						
Operating						
Profit before taxation	(340)	23,090	10,778	8,053	20,989	24,711
Depreciation & amortization	19,161	18,180	16,438	5,126	4,946	4,685
Tax paid	(1,948)	(4,064)	(3,187)	(2,571)	(5,000)	(6,309)
Change in working capital	(6,687)	(18,207)	(18,691)	(472)	489	305
Others	18,272	5,201	14,784	7,182	7,280	7,384
Net cash from operations	28,458	24,200	20,122	17,318	28,704	30,777
Investing						
Capital expenditure	(6,428)	(5,084)	(10,896)	(3,180)	(2,515)	(1,989)
Acquisition of subsidiaries/ investments	(969)	(2,396)	(247)	0	0	0
Net proceeds from disposal of short-term investments	(476)	(486)	0	0	0	0
Others	(12,101)	(19,586)	(20,301)	(161)	(130)	(104)
Net cash from investing	(19,974)	(27,552)	(31,444)	(3,341)	(2,645)	(2,094)
Financing						
Net borrowings	771	12,390	8,840	(12,629)	0	0
Share repurchases	(4,958)	(13,054)	(7,581)	0	0	0
Others	314	6,329	22,137	(1,442)	288	(534)
Net cash from financing	(3,873)	5,665	23,396	(14,071)	288	(534)
Net change in cash						
Cash at the beginning of the year	29,827	34,439	36,540	47,671	47,577	73,923
Exchange difference	1	(212)	(943)	0	0	0
Cash at the end of the year	34,439	36,540	47,671	47,577	73,923	102,073
GROWTH	2019A	2020A	2021A	2022E	2023E	2024E
YE 31 Dec						
Revenue	5.0%	(0.3%)	16.3%	(1.6%)	9.9%	7.5%
Gross profit	(11.8%)	16.5%	15.9%	(2.9%)	11.8%	9.0%
Operating profit	(59.4%)	127.4%	(26.7%)	43.2%	23.4%	15.3%
Net profit	(92.5%)	992.5%	(54.5%)	(43.5%)	169.0%	13.6%
Adj. net profit	(24.2%)	21.1%	(14.5%)	8.0%	8.4%	9.8%
PROFITABILITY	2019A	2020A	2021A	2022E	2023E	2024E
YE 31 Dec						
Gross profit margin	41.5%	48.5%	48.3%	47.7%	48.5%	49.2%
Operating margin	5.9%	13.4%	8.4%	12.3%	13.8%	14.8%
Adj. net profit margin	16.9%	20.6%	15.1%	16.6%	16.4%	16.7%
Return on equity (ROE)	1.3%	12.8%	5.1%	2.6%	6.6%	6.8%
GEARING/LIQUIDITY/ACTIVITIES	2019A	2020A	2021A	2022E	2023E	2024E
YE 31 Dec						
Net debt to equity (x)	(0.5)	(0.5)	(0.5)	(0.5)	(0.6)	(0.7)
Current ratio (x)	2.9	2.7	2.9	2.9	3.2	3.5
Receivable turnover days	22.5	27.0	27.0	28.0	25.4	25.7
Payable turnover days	195.0	226.5	218.6	229.3	212.7	206.7
VALUATION	2019A	2020A	2021A	2022E	2023E	2024E
YE 31 Dec						
P/E	154.5	13.1	42.3	53.2	20.0	17.8
P/E (diluted)	154.8	13.2	43.2	54.3	20.4	18.1
P/B	1.9	1.6	2.0	1.4	1.3	1.2
P/CFPS	14.5	15.5	47.9	22.2	12.1	11.1

Source: Company data, CMBIGM estimates. Note: The calculation of net cash includes financial assets.



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