

Baidu (BIDU US)

Strong AI capability to empower business growth

Baidu announced (22 Feb) its 4Q22 and full year results: quarterly revenue was RMB33.1bn, flat YoY, 4/3% higher than our forecast/Bloomberg consensus estimates; non-GAAP net income was RMB5.4bn, 7/13% higher than our forecast/Bloomberg consensus estimates, driven by stringent cost control. Non-ad revenue was up 10% YoY and accounted for 30% of Baidu Core revenue (4Q21: 26%). For 2022, Baidu Core revenue was flat YoY at RMB95.4bn, while non-GAAP OP was down 6% YoY to RMB20.9bn due to soft advertising business performance (in which revenue was down 6% YoY) amid macro headwinds. Development of Baidu's autonomous driving and AI new initiatives is on track, in our view, and core ads business will provide strong cash flow support for future development. We lift our SOTP based TP by 1% to US\$196.3 to reflect potential better than expected recovery of core ads business. Maintain BUY.

- **Cloud business saw gradual recovery and development of other AI new initiatives is on track.** Owing to pandemic which impacted project deployment, Baidu Cloud revenue grew merely 4% YoY to RMB5.1bn in 4Q22, but was up 23% YoY in 2022. Management noted gradual recovery for cloud revenue growth given the resumption of project deployment, but expects revenue recognition to be back-loaded in 2023. In 4Q22, rides provided by Apollo Go were more than 561,000, up 162% YoY and 18% QoQ. Baidu's ACE (Autonomous driving, connected road, efficient mobility) smart transportation has been adopted by 69 cities in 4Q22 (4Q21/3Q22: 35/63 cities), based on contract amounts of over RMB10mn.
- **Core ads business on solid recovery track.** Baidu Core revenue was down by 1.2% YoY to RMB25.7bn in 4Q22 (77.6% of total revenue) due to pandemic impact, but 4% higher than our estimate. In December 2022, MAUs of Baidu app were 648mn, up 4% YoY. Management noted that Baidu Core ads business has seen a recovery from trough, and it remains positive on the recovery ahead driven by demand recovery. Baidu has relative larger exposure than its peers on ads verticals that are sensitive to offline activities such as franchising, lifestyle, travel, which could benefit more from post pandemic recovery, in our view. We forecast Baidu Core ads business revenue to reach RMB75.5bn in 2023E, up 8.9% YoY (previous forecast: 7.4%).
- **Focusing on driving efficiency improvement while remains committed to invest for long-term growth drivers.** Baidu's GPM was 48.8% in 4Q22, up 1.1pp YoY and was 2.4pp better than our forecast, driven by beat on GPM of both iQIYI and Baidu Core business aided by content cost optimization. Due to stringent than expected cost control, non-GAAP OPM for Baidu Group/Baidu Core was 19.6/21.4%, better than our forecast at 16.8/19.8%. Management guided to drive for cloud margin improvement in 2023, and they will remain focused on core industries to enhance competitive edge. The company will stay committed to invest in autonomous driving and AI new initiatives to support long-term growth.

Earnings Summary

(YE 31 Dec)	FY21A	FY22A	FY23E	FY24E	FY25E
Revenue (RMB mn)	124,493	123,675	136,974	147,086	163,500
YoY growth (%)	16.3	(0.7)	10.8	7.4	11.2
Adjusted net profit (RMB mn)	18,830.0	20,680.0	22,468.9	24,865.9	29,323.5
Adj. NP (consensus; RMBmn)			21,565.7	25,330.5	31,437.0
EPS (Adjusted) (RMB)	53.53	58.90	63.36	69.42	81.06
P/E (x)	42.3	40.1	21.6	19.1	15.6

Source: Company data, Bloomberg, CMBIGM estimates

BUY (Maintain)

Target Price US\$196.30

(Previous TP US\$195.2)

Up/Downside 39.4%

Current Price US\$140.82

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Stock Data

Mkt Cap (US\$ mn)	49,445.4
Avg 3 mths t/o (US\$ mn)	126.9
52w High/Low (US\$)	162.86/76.57
Total Issued Shares (mn)	351.1

Source: FactSet

Shareholding Structure

Robin Yanhong Li	16.5%
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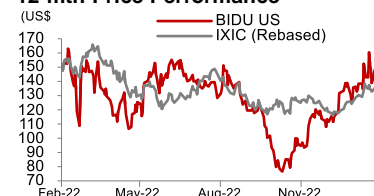
Source: HKEx

Share Performance

	Absolute	Relative
1-mth	3.7%	-2.0%
3-mth	48.9%	39.3%
6-mth	9.1%	17.5%

Source: FactSet

12-mth Price Performance



Source: FactSet

Figure 1: Baidu: quarterly financial results

(RMBbn)	4Q20	1Q21	2Q21	3Q21	4Q21	1Q22	2Q22	3Q22	4Q22	4Q22 Consensus	Diff%
Baidu Group											
Online marketing	20.7	18.1	20.8	21.1	20.7	16.9	18.3	19.9	19.6	19.2	2.1%
YoY growth (%)	-0.3%	27.0%	17.8%	4.2%	0.1%	-6.4%	-12.3%	-5.3%	-5.6%		
Other services	9.6	10.0	10.5	10.9	12.4	11.5	11.4	12.6	13.5	13.3	1.9%
YoY growth (%)	17.7%	20.9%	26.1%	35.4%	29.4%	14.4%	8.1%	15.9%	9.2%		
Total revenue	30.3	28.1	31.4	31.9	33.1	28.4	29.6	32.5	33.1	32.1	3.2%
YoY growth (%)	4.8%	24.8%	20.4%	13.1%	9.3%	1.0%	-5.4%	1.9%	0.0%		
Gross profit	15.7	13.1	15.5	15.8	15.8	12.9	14.5	16.3	16.1	15.5	3.8%
Operating profit	5.0	2.8	3.5	2.3	2.0	2.6	3.4	5.3	4.6	3.8	21.2%
Non-GAAP net profit	6.9	4.3	5.4	5.1	4.1	3.9	5.5	5.9	5.4	4.7	13.4%
YoY growth (%)	-25%	39%	5%	-27%	-41%	-10%	3%	16%	32%		
GPM (%)	52.0%	46.7%	49.3%	49.5%	47.7%	45.3%	48.8%	50.0%	48.8%	48.5%	0.3 ppt
OPM (%)	16.4%	9.9%	11.0%	7.2%	5.9%	9.2%	11.5%	16.3%	13.9%	11.8%	2.1 ppt
Non-GAAP NPM (%)	22.7%	15.3%	17.1%	15.9%	12.3%	13.7%	18.7%	18.1%	16.2%	14.8%	1.5 ppt
Baidu Core											
Revenue	23.1	20.5	24.0	24.7	26.0	21.4	23.2	25.2	25.7	25.1	2.2%
YoY growth (%)	6.4%	34.2%	27.0%	15.3%	12.4%	4.4%	-3.7%	2.3%	-1.2%		
Non-GAAP OP	8.0	5.1	6.5	5.8	4.8	3.7	5.1	6.7	5.5	5.0	9.9%
Non-GAAP NP	7.5	4.9	5.9	5.9	4.6	3.8	5.4	5.8	4.9	4.3	13.2%
YoY growth (%)	-24.3%	7.8%	5.1%	-21.8%	-38.6%	-21.9%	-8.3%	-1.5%	6.3%		
Non-GAAP OPM (%)	34.8%	24.7%	26.9%	23.6%	18.7%	17.2%	22.1%	26.4%	21.4%	19.9%	1.5 ppt
Non-GAAP NPM (%)	32.6%	23.8%	24.7%	23.7%	17.8%	17.8%	23.5%	22.8%	19.2%	17.3%	1.9 ppt

Source: Company data, Bloomberg, CMBIGM

Changes in forecast and valuation

Figure 2: Baidu forecast revision

RMB bn	Current			Previous		Change (%)	
	2023E	2024E	2025E	2023E	2024E	2023E	2024E
Revenue	137.0	147.1	163.5	134.7	144.8	1.7%	1.5%
Gross Profit	66.8	72.6	82.3	65.3	71.2	2.2%	1.9%
Non-GAAP net profit	22.5	24.9	29.3	22.0	24.2	1.9%	2.8%
Gross Margin	48.7%	49.4%	50.3%	48.5%	49.2%	0.2 ppt	0.2 ppt
Non-GAAP net margin	16.4%	16.9%	17.9%	16.4%	16.7%	0.0 ppt	0.2 ppt

Source: CMBIGM estimates

Figure 3: Baidu Core business segment forecast revision

RMB bn	Current			Previous		Change (%)	
	2023E	2024E	2025E	2023E	2024E	2023E	2024E
Revenue	106.4	115.1	130.0	104.3	112.8	2.0%	2.0%
Non-GAAP Gross Profit	59.2	64.1	72.5	58.1	62.9	1.8%	1.8%
Non-GAAP Operating Profit	23.8	26.2	30.3	22.6	24.5	5.3%	7.1%
Non-GAAP net profit	21.2	23.3	27.3	21.0	22.8	0.9%	2.1%
Non-GAAP GPM	43.2%	43.6%	44.4%	43.2%	43.4%	0.0 ppt	0.1 ppt
Non-GAAP OPM	17.3%	17.8%	18.5%	16.7%	16.9%	0.6 ppt	0.9 ppt
Non-GAAP NPM	15.5%	15.8%	16.7%	15.6%	15.7%	-0.1 ppt	0.1 ppt

Source: CMBIGM estimates

Figure 4: CMBIGM estimates vs Bloomberg consensus

RMB bn	Current			Consensus			Diff (%)		
	2023E	2024E	2025E	2023E	2024E	2025E	2023E	2024E	2025E
Revenue	137.0	147.1	163.5	135.2	148.7	160.3	1.3%	-1.1%	2.0%
Gross Profit	66.8	72.6	82.3	65.9	73.5	80.8	1.3%	-1.2%	1.9%
Non-GAAP net profit	22.5	24.9	29.3	21.6	25.3	31.4	4.2%	-1.8%	-6.7%
Gross Margin	48.7%	49.4%	50.3%	48.7%	49.4%	50.4%	0.0 ppt	-0.1 ppt	0.0 ppt
Non-GAAP net margin	16.4%	16.9%	17.9%	15.9%	17.0%	19.6%	0.5 ppt	-0.1 ppt	-1.7 ppt

Source: Bloomberg, CMBIGM estimates

SOTP valuation of US\$196.3 per ADS

Our SOTP based target price is US\$196.3, which comprises, per ADS:

- 1) US\$60.4 (prior US\$59.1) 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 lift in non-GAAP net income forecast driven by potential better than expected recovery of ads business;
- 2) US\$22.8 (prior US\$22.5) for Apollo ASD, based on 2.0x 2030E revenue, and discounted back using a 13.0% WACC. The slight uptick in valuation is mainly due to the shrink in share base due to Baidu's share buyback.
- 3) US\$40.3 (prior US\$40.4) for Baidu Cloud, based on unchanged 4.8x 2023E PS. It is inline with the target multiple that we are giving to its Chinese cloud peers, but below the average of 5.9x (Fig.5) for overseas comparable companies because its cloud revenue is on a smaller scale;
- 4) US\$58.6 net cash (prior US\$60.3);
- 5) US\$14.2 (prior US\$12.9) for iQIYI and other investments, with a 30% holding discount applied to the share price of US\$20.4 as of market close on 21 Feb 2023.

Figure 5: 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								
1) Baidu core (ex-Apollo and Cloud)	3,058	7.0x 2023E PE	148,222	21,404	100.0	21,404	60.4	30.7
2) Apollo ASD			55,926	8,076	100.0	8,076	22.8	11.6
3) Baidu Cloud (ex-ASD)		4.8x 2023E PS	98,985	14,294	100.0	14,294	40.3	20.5

4) Net cash		143,916	20,782	100.0	20,782	58.6	29.9
Valuation of core business and cash					64,556	182.0	92.7
iQIYI and strategic investment							
1) iQIYI	Market value	47,446	6,851	51.5	3,528	9.9	
2) Trip.com group	Market value	161,126	23,267	10.8	2,513	7.1	
3) Uxin	Market value	764	110	9.1	10	0.0	
4) HAND Enterprise Solutions	Market value	10,111	1,460	5.3	77	0.2	
5) Kuaishou	Market value	217,848	31,458	3.1	977	2.8	
6) Yusys Technologies	Market value	15,260	2,204	5.1	113	0.3	
Valuation of iQIYI and investments					7,218	20.4	
Valuation of iQIYI and investment (with 30% holding discount)					5,053	14.2	7.3
Total Baidu valuation (US\$mn)					69,609		
Number of ADS outstanding (mn)					355		
Valuation per ADS (US\$)					196.3		

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 21 Feb 2023 market close.

Our target price translates into 21.5/19.6x 2023/2024E PE on non-GAAP basis, or 15.0/13.7x if excluding net cash. Our previous target price of US\$195.2 translated into 22.0x 2023E PE.

Figure 6: Cloud computing: peers valuation comps

Companies	Ticker	Price	Revenue growth (YoY%)			PS(x)		
		(US\$)	2022	2023E	2024E	2022	2023E	2024E
Microsoft	MSFT US	254.1	11.4	8.4	11.5	9.3	8.5	7.7
Google	GOOG US	91.9	(9.2)	17.5	7.4	5.0	4.3	4.0
Salesforce	CRM US	164.5	17.4	10.2	12.1	5.3	4.8	4.3
Average						6.5	5.9	5.3

Source: Bloomberg, CMBIGM

Note: data as of 21 Feb 2023

Financial Summary

INCOME STATEMENT	2020A	2021A	2022A	2023E	2024E	2025E
YE 31 Dec (RMB mn)						
Revenue	107,074	124,493	123,675	136,974	147,086	163,500
Cost of goods sold	(55,158)	(64,314)	(63,935)	(70,206)	(74,482)	(81,196)
Gross profit	51,916	60,179	59,740	66,768	72,605	82,304
Operating expenses	(37,576)	(49,661)	(43,829)	(46,894)	(49,695)	(54,408)
SG&A expense	(18,063)	(24,723)	(20,514)	(22,053)	(23,387)	(25,670)
R&D expense	(19,513)	(24,938)	(23,315)	(24,841)	(26,309)	(28,738)
Operating profit	14,340	10,518	15,911	19,874	22,909	27,897
Share of (losses)/profits of associates/JV	(2,248)	(932)	(1,910)	(1,001)	(633)	(261)
Adjusted EBITDA	27,504	24,914	29,663	33,649	37,200	42,812
Net Interest income/(expense)	2,255	2,130	3,332	2,364	3,160	3,491
Foreign exchange gain/loss	(660)	100	(1,484)	0	0	0
Other income/expense	9,403	(1,038)	(5,737)	0	0	0
Pre-tax profit	23,090	10,778	10,112	21,236	25,436	31,127
Income tax	(4,064)	(3,187)	(2,578)	(4,796)	(6,517)	(7,709)
After tax profit	19,026	7,591	7,534	16,441	18,919	23,418
Minority interest	(3,446)	(2,635)	(25)	672	926	1,232
Net profit	22,472	10,226	7,559	15,769	17,993	22,186
Adjusted net profit	22,020	18,830	20,680	22,469	24,866	29,323
BALANCE SHEET	2020A	2021A	2022A	2023E	2024E	2025E
YE 31 Dec (RMB mn)						
Current assets	183,342	213,315	212,850	235,866	266,945	304,052
Cash & equivalents	35,782	36,850	53,156	76,385	105,554	139,680
Restricted cash	758	10,821	11,330	11,330	11,330	11,330
Account receivables	8,668	9,981	11,733	10,132	10,880	12,095
Other current assets	138,134	155,663	136,631	138,019	139,180	140,948
Non-current assets	149,366	166,719	178,123	165,177	162,586	159,879
PP&E	17,508	23,027	23,973	16,330	15,092	13,759
Intangibles	8,457	8,947	8,095	2,792	1,439	64
Goodwill	22,248	22,605	22,477	22,477	22,477	22,477
Other non-current assets	101,153	112,140	123,578	123,578	123,578	123,578
Total assets	332,708	380,034	390,973	401,043	429,530	463,931
Current liabilities	68,385	74,488	79,630	85,440	87,634	90,209
Short-term borrowings	3,016	4,168	5,343	5,343	5,343	5,343
Account payables	36,716	41,384	38,014	42,406	43,521	44,347
Other current liabilities	28,653	28,936	36,273	37,691	38,769	40,520
Non-current liabilities	72,480	81,594	73,538	62,746	61,377	60,672
Long-term borrowings	0	12,629	13,722	0	0	0
Bond payables	60,335	55,772	49,461	52,391	51,022	50,317
Obligations under finance leases	4,693	5,569	4,810	4,810	4,810	4,810
Deferred income	97	129	159	159	159	159
Other non-current liabilities	7,355	7,495	5,386	5,386	5,386	5,386
Total liabilities	140,865	156,082	153,168	148,186	149,010	150,881
Share capital	0	0	0	0	0	0
Capital surplus	47,213	47,548	47,883	48,218	48,553	48,888
Retained earnings	135,483	163,911	175,595	190,312	217,640	249,835
Other reserves	3,102	7,148	8,393	8,393	8,393	8,393
Total shareholders equity	185,798	218,607	231,871	246,923	274,586	307,116
Minority interest	6,045	5,345	5,934	5,934	5,934	5,934
Total equity and liabilities	332,708	380,034	390,973	401,044	429,530	463,931

CASH FLOW	2020A	2021A	2022A	2023E	2024E	2025E
YE 31 Dec (RMB mn)						
Operating						
Profit before taxation	23,090	10,778	10,112	21,236	25,436	31,127
Depreciation & amortization	18,180	16,438	5,126	4,946	4,685	4,364
Tax paid	(4,064)	(3,187)	(2,578)	(4,796)	(6,517)	(7,709)
Change in working capital	(18,207)	(18,691)	(2,750)	6,022	285	(406)
Others	5,201	14,784	16,260	7,488	7,725	8,093
Net cash from operations	24,200	20,122	26,170	34,897	31,613	35,469
Investing						
Capital expenditure	(5,084)	(10,896)	(3,180)	(2,515)	(1,989)	(1,573)
Acquisition of subsidiaries/ investments	(2,396)	(247)	0	0	0	0
Net proceeds from disposal of short-term investments	(486)	0	0	0	0	0
Others	(19,586)	(20,301)	(764)	(130)	(104)	(84)
Net cash from investing	(27,552)	(31,444)	(3,944)	(2,645)	(2,094)	(1,657)
Financing						
Net borrowings	12,390	8,840	(1,333)	(13,722)	0	0
Share repurchases	(13,054)	(7,581)	0	0	0	0
Others	6,329	22,137	(5,057)	3,949	(351)	314
Net cash from financing	5,665	23,396	(6,390)	(9,773)	(351)	314
Net change in cash						
Cash at the beginning of the year	34,439	36,540	47,671	65,236	87,715	116,884
Exchange difference	(212)	(943)	1,729	0	0	0
Cash at the end of the year	36,540	47,671	65,236	87,715	116,884	151,010
GROWTH	2020A	2021A	2022A	2023E	2024E	2025E
YE 31 Dec						
Revenue	(0.3%)	16.3%	(0.7%)	10.8%	7.4%	11.2%
Gross profit	16.5%	15.9%	(0.7%)	11.8%	8.7%	13.4%
Operating profit	127.4%	(26.7%)	51.3%	24.9%	15.3%	21.8%
Net profit	992.5%	(54.5%)	(26.1%)	108.6%	14.1%	23.3%
Adj. net profit	21.1%	(14.5%)	9.8%	8.7%	10.7%	17.9%
PROFITABILITY	2020A	2021A	2022A	2023E	2024E	2025E
YE 31 Dec						
Gross profit margin	48.5%	48.3%	48.3%	48.7%	49.4%	50.3%
Operating margin	13.4%	8.4%	12.9%	14.5%	15.6%	17.1%
Adj. net profit margin	20.6%	15.1%	16.7%	16.4%	16.9%	17.9%
Return on equity (ROE)	12.8%	5.1%	3.4%	6.6%	6.9%	7.6%
GEARING/LIQUIDITY/ACTIVITIES	2020A	2021A	2022A	2023E	2024E	2025E
YE 31 Dec						
Net debt to equity (x)	(0.5)	(0.5)	(0.5)	(0.6)	(0.6)	(0.7)
Current ratio (x)	2.7	2.9	2.7	2.8	3.0	3.4
Receivable turnover days	27.0	27.0	31.6	28.7	25.7	25.3
Payable turnover days	226.5	218.6	223.5	206.2	207.7	194.8
VALUATION	2020A	2021A	2022A	2023E	2024E	2025E
YE 31 Dec						
P/E	13.1	42.3	40.1	21.6	19.1	15.6
P/E (diluted)	13.2	43.2	40.5	21.8	19.3	15.8
P/B	1.6	2.0	1.3	1.4	1.3	1.1
P/CFPS	15.5	47.9	13.3	10.6	11.7	10.3

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

Disclosures & Disclaimers

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CMBIGM Ratings

BUY	: Stock with potential return of over 15% over next 12 months
HOLD	: Stock with potential return of +15% to -10% over next 12 months
SELL	: Stock with potential loss of over 10% over next 12 months
NOT RATED	: Stock is not rated by CMBIGM
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MARKET-PERFORM	: Industry expected to perform in-line with the relevant broad market benchmark over next 12 months
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