Baidu (BIDU US)

Eyes on new technologies development

Baidu saw sequential recovery on core search and feed ads demand in July-August compared to June as pandemic impact gradually waned. Although ads demand recovery is likely to be rocky given uncertain COVID resurgence conditions, we expect limited room for incremental negative impacts rolling into 2023. Cash flows generated from ads business provide solid support for investing into new initiatives. We remain confident on long-term potential of Baidu's AI cloud, next generation operating system development and autonomous driving. Baidu has established a wide array of industry and ecosystem partnerships, enjoyed early-mover advantage in AI cloud computing and autonomous driving, and the roadmap towards new technologies goals is clear. With 21-24E revenue CAGR of 6.4%, we forecast non-GAAP net income CAGR of 8.5%. Our SOTP valuation derived target price is US$192.8. BUY.

■ **New initiatives poised for long-term growth beyond consumer internet.** Although softened macro and pandemic resurgence weigh on overall cloud industry revenue growth, we expect Baidu Cloud to sustain higher than peers revenue growth over 23-24E, driven by its comparative advantage in verticals like smart transportation, manufacturing, energy & utilities and public services. We expect Baidu AI Cloud computing YoY revenue growth will moderate to 21% YoY in 3Q22E (2Q22: 31%) as the company is scaling down low profitability projects to focus more on higher profitability ones. For Apollo Self Driving (ASD), cumulative ASD partnership sales has reached RMB10.3bn in 2Q22, and we expect revenue to be realized from 2H23 onwards with mass production of cooperated vehicles.

■ **Baidu Core search and feed ads: recovery was on course but pandemic resurgence brought disruption.** Normalization in offline activities propelled recovery of Baidu Core's search and feed ads in July to early August 2022. However, pandemic resurgence in mid-August has brought summer vacation season to an early end and impacted the pace of ads business recovery. In addition, consumption sentiment was bumpy and recovery in merchants' advertising spend will take time. We expect gradual recovery to come along in 2023. We forecast Baidu's core search and feed ads revenue growth of -4.5/+2.2% YoY in 3Q/4Q22E (2Q22:-10%), and a 4.0% YoY decline for 2022E (2021: +12% YoY).

■ **Sequential margin improvement likely to sustain in 3Q22.** We forecast 3Q22 Baidu Core revenue of RMB24.8bn, up 0.6% YoY, and Baidu Core's non-GAAP OPM to improve to 22.6% in 3Q22 (2Q22: 22.1%), thanks to gradual ads recovery, stringent cost control, and improving cloud margins aided by better offering mix. We expect overall cloud business to break even in two to three years. We forecast Baidu Core to achieve 21-24E revenue/non-GAAP OP CAGR of 7.5/2.2%.

■ **Catalysts:** 1) beat on 3Q22 results; 2) recovery in macro; 3) faster than expected new business development.

Earnings Summary

(YE 31 Dec)	FY20A	FY21A	FY22E	FY23E	FY24E
Revenue (RMB mn)	107,074	124,493	124,309	137,657	149,812
YoY growth (%)	(0.3)	16.3	(0.1)	10.7	8.8
Net profit (RMB mn)	22,472.0	10,226.0	10,144.9	13,814.9	17,277.2
Adjusted net profit (RMB mn)	22,020.0	18,830.0	20,336.7	20,494.4	24,083.7
Adj. NP (Consensus, RMBmn)	NA	NA	18,796.0	22,184.8	27,351.7
EPS (Adjusted) (RMB)	63.93	53.53	57.24	57.12	66.45
P/E (x)	13.1	42.3	20.4	15.1	12.2
ROE (%)	12.8	5.1	4.5	5.8	6.5

Source: Company data, Bloomberg, CMBIGM estimates

BUY (Maintain)

Target Price	**US$192.80**
Up/Downside	**137.4%**
Current Price	**US$81.21**

China Internet

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Stock Data

Mkt Cap (US$ mn)	28,851.3
Avg 3 mths t/o (US$ mn)	126.2
52w High/Low (US$)	171.27/79.75
Total Issued Shares (mn)	355.3

Source: FactSet

Shareholding Structure

Robin Yanhong Li	16.5%

Source: HKEx

Share Performance

	Absolute	Relative
1-mth	-31.6%	-32.1%
3-mth	-42.1%	-37.7%
6-mth	-30.3%	-17.3%

Source: FactSet

12-mth Price Performance
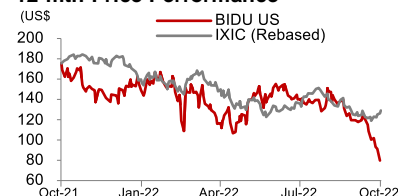
Source: FactSet

Key business segment forecasts

Baidu's two main business segments: 1) Baidu Core and iQIYI; 2) online marketing services and other services. We forecast total revenue CAGR of 6.4% for Baidu over 2021-2024E, driven by 7.5% CAGR for Baidu Core and 2.0% CAGR for iQIYI. In terms of revenue contribution, we estimate Baidu Core's contribution to increase from 76.4% in 2021 to 79.0% in 2024E.

Baidu Core revenue primarily comprises: 1) auction-based P4P online marketing services that include search and feed online marketing services; 2) other online marketing services, including display advertisement, based on performance criteria other than CPC; 3) cloud services; 4) smart devices and services; 5) non-marketing consumer-facing services such as membership; and 6) intelligent driving.

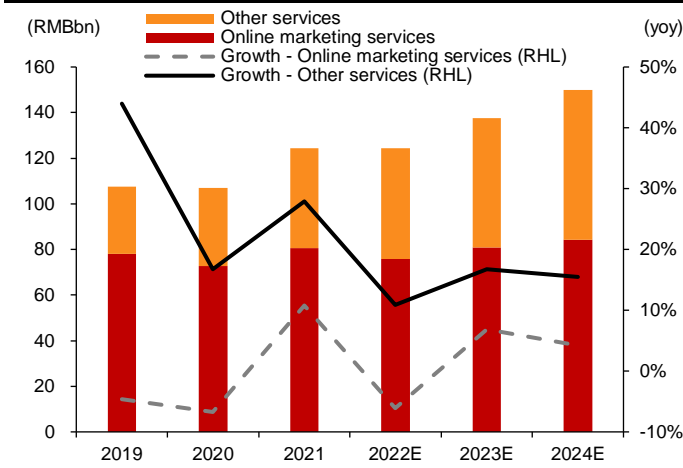**Figure 1: Baidu: total revenue and growth**
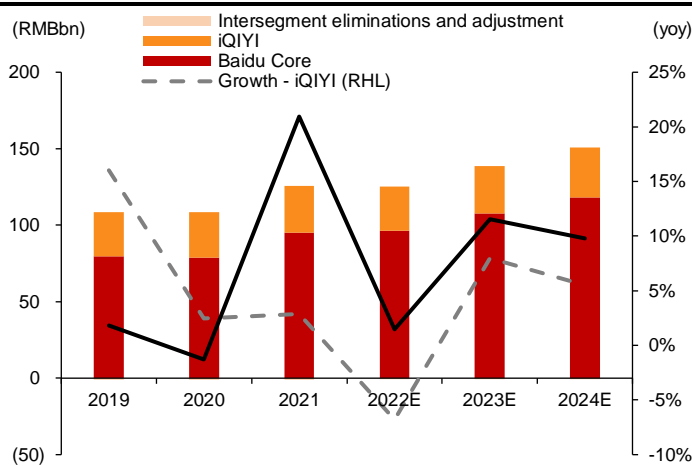
Source: Company data, CMBIGM estimates

**Figure 2: Baidu: revenue breakdown**
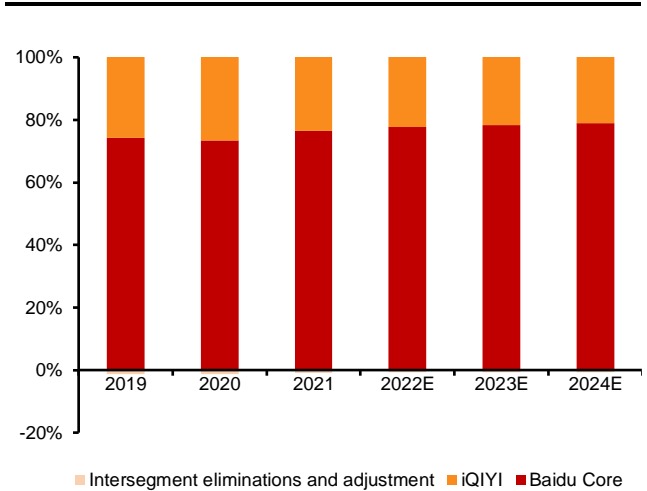
Source: Company data, CMBIGM estimates

We forecast online marketing services revenue (including online marketing servcies provided by both Baidu Core and iQIYI) to achieve 2021-2024E revenue CAGR of 1.5%, and other services (including non-ads revenue from both Baidu Core and iQIYI) to achieve revenue CAGR of 14.3%. As a result, revenue contribution from online marketing services will decline to 56.3% in 2024E (2021: 64.8%).

Figure 3: Baidu: total revenue and growth

Source: Company data, CMBIGM estimates

Figure 4: Baidu: revenue breakdown
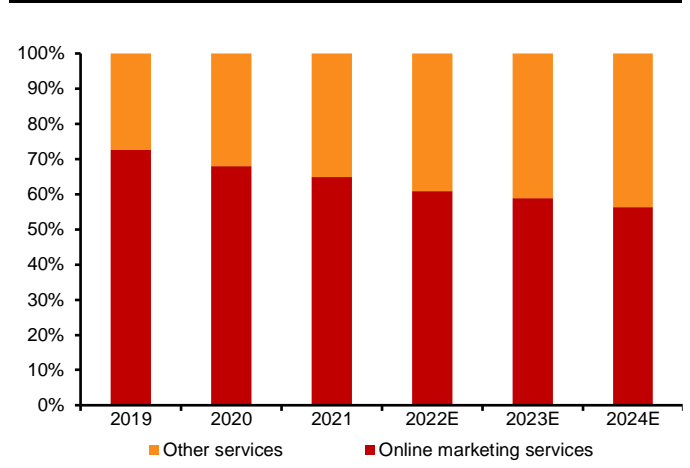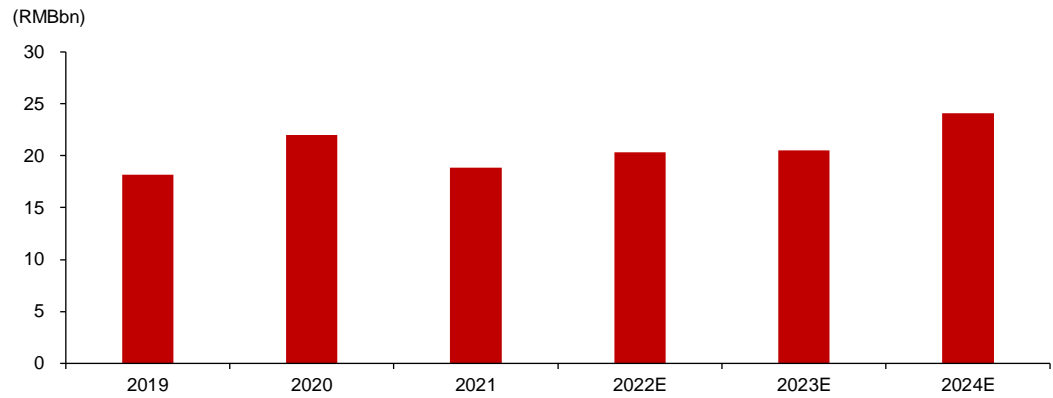

Source: Company data, CMBIGM estimates

In terms of margins, we forecast non-GAAP OPM of 17.4% for Baidu Group in 2022E, up 2.1pp YoY, driven by the strong margin improvement of iQIYI aided by stringent cost control and optimization of content cost spend. However, we forecast non-GAAP OPM to slightly decline to 16.6% in 2023E driven by Baidu's continuous investment in new initiatives (autonomous driving) to support long-term revenue and earnings growth, but to improve to 17.9% in 2024E, mainly driven by improving cost structure in both cloud business and autonomous driving business of Baidu Core.

Figure 5: Baidu: key financial forecast

| (RMB bn)	2019	2020	2021	2022E	2023E	2024E
Baidu Group						
Revenue	107.4	107.1	124.5	124.3	137.7	149.8
Non-GAAP operating profit	12.8	21.7	19.0	21.6	22.9	26.8
Non-GAAP net profit	18.2	22.0	18.8	20.3	20.5	24.1
Non-GAAP OPM (%)	11.9	20.3	15.3	17.4	16.6	17.9
Non-GAAP NPM (%)	16.9	20.6	15.1	16.4	14.9	16.1
Baidu Core						
Revenue	79.7	78.7	95.2	96.6	107.8	118.3
Non-GAAP operating profit	20.3	26.4	22.2	20.2	20.7	23.7
Non-GAAP net profit	22.8	25.2	21.3	19.9	19.8	23.0
Non-GAAP OPM (%)	25.5	33.5	23.3	20.9	19.2	20.1
Non-GAAP NPM (%)	28.6	32.0	22.4	20.6	18.3	19.5
iQIYI						
Revenue	29.0	29.7	30.6	28.5	30.7	32.4
Non-GAAP operating profit	(7.8)	(4.5)	(3.0)	1.6	2.3	3.2
Non-GAAP net profit	(8.8)	(5.4)	(4.5)	0.8	1.3	1.9
Non-GAAP OPM (%)	(27.0)	(15.1)	(9.9)	5.6	7.6	9.9
Non-GAAP NPM (%)	(30.2)	(18.3)	(14.7)	2.6	4.3	5.8

Source: Company data, CMBIGM estimates

We forecast non-GAAP net income attributable to Baidu to achieve a 2021-2024E CAGR of 8.5%, driven by: 1) increase in non-GAAP net profit contribution from iQIYI thanks to improving cost structure and stringent cost control; 2) narrowing losses from Baidu Cloud, which we expect to turn profitable in two to three years.

Figure 6: Baidu: non-GAAP net income attributable to Baidu

Source: Company data, CMBIGM estimates

Baidu Core's advertising business has strong cash flow generation capability, and we expect the stable business development of advertising business to provide strong support for the investment in new businesses. We forecast Baidu's net cash provided by operating activities to reach RMB22.7/27.2/30.8bn in 2022/2023/2024E.

Figure 7: Baidu: net cash provided by operating activities
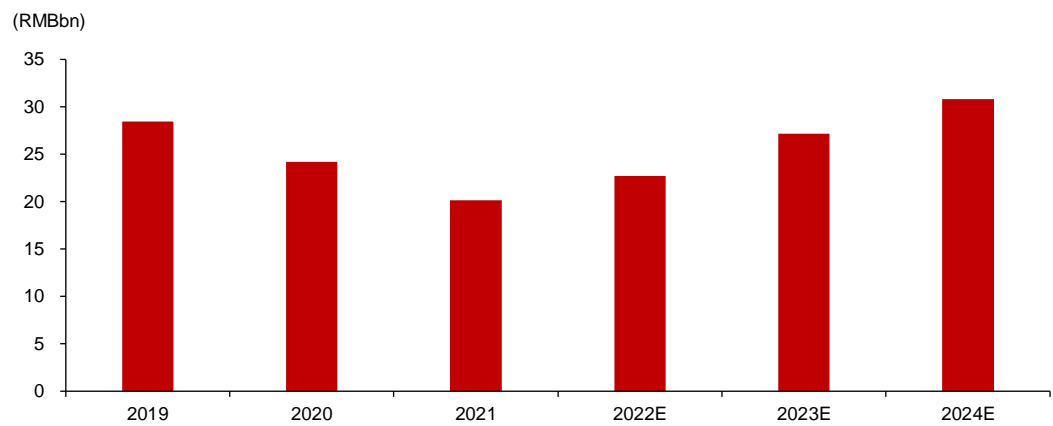
Source: Company data, CMBIGM estimates

## Baidu Core (77.7% of 2022E revenue)

Within Baidu Core business, advertising business segment was still the largest revenue generator in 2Q22 with 74% of total contribution, while Baidu Cloud enjoyed the fastest YoY revenue growth in 2Q22 and increased its contribution to 19% in 2Q22 (2Q21: 14%). Advertising revenue will continue to generate strong cash flow to support the development of new businesses.

Figure 8: Baidu Core: revenue breakdown (2Q22)
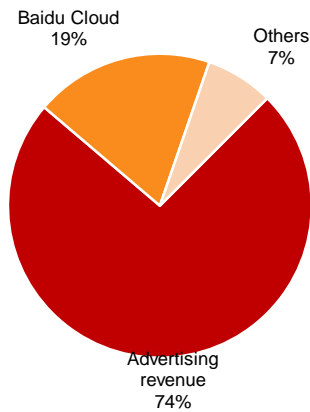
Source: Company data, CMBIGM estimates

Figure 9: Baidu Core: revenue breakdown (2Q21)
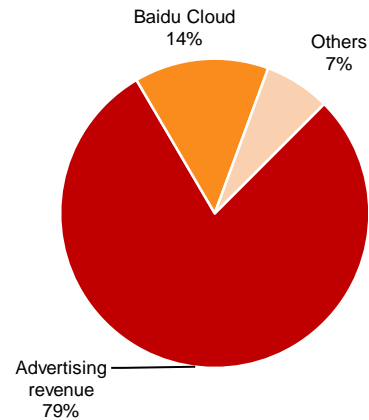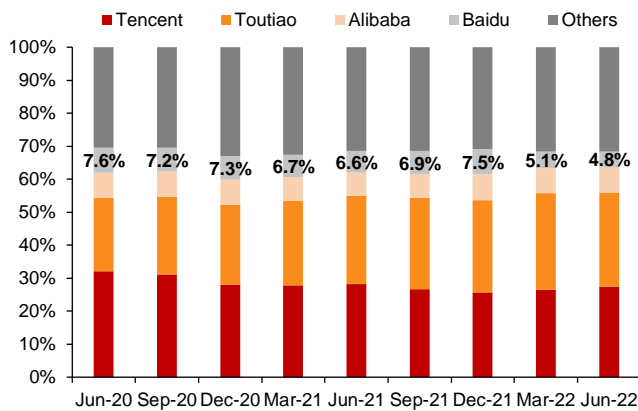

Source: Company data, CMBIGM estimates

Within Baidu Core business, we estimate 2021-2024E revenue CAGR of 26.3/2.2% for Baidu Cloud/advertising business.

Advertising: strong cash-flow generator to aid new businesses development

As percentage of total netizen time spend in China market, Baidu is seeing a declining trend in 2Q22, which we attributed to intensified competition from short-video platforms. However, Baidu's market share in China's online advertising market in terms of revenue generation held up in 1H22 compared to that in 2021, which in our view demonstrated resilience of Baidu's advertising business amid challenging macro, as search ads, with direct response in nature, could help merchants generate better ROI, compared with other advertising format, such as display ads.

According to MoonFox data, total user time spent on Baidu was 4.8% of total in June 2022, compared to 6.6% in June 2021 and 7.6% in June 2020. However, in terms of revenue generation, Baidu accounted for 11.3% of total China's online advertising market in 1H22, largely stable compared to that of 11.2% in 2021, which demonstrated the resilience of Baidu's ad business, in our view. We attributed to Baidu's enhanced user stickiness supported by enhanced content ecosystem, and the search advertising format, which could help merchants generate better ROI.

Figure 10: Breakdown of netizen's user time spend in China market

Source: MoonFox, CMBIGM

Figure 11: China online ads market share (revenue)
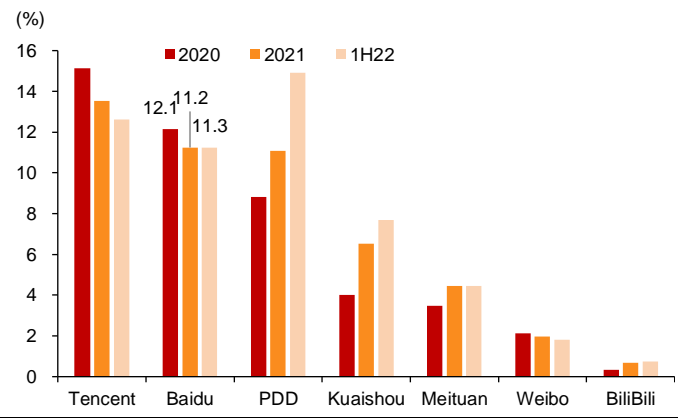
Source: QuestMobile, company data, CMBIGM

Baidu Core's ads revenue generation was impacted by pandemic resurgence and macro headwinds in 1H22. In 2Q22, Baidu Core's ads revenue declined by 10.1% YoY, but it was better than market expectation thanks to recovery in ad demand in June, especially in healthcare and e-commerce verticals. According to management, Baidu continues to see encouraging recovery in YoY revenue growth in July and August, until Omicron resurgence brought disturbance again.

Figure 12: Baidu Core: ads revenue and growth
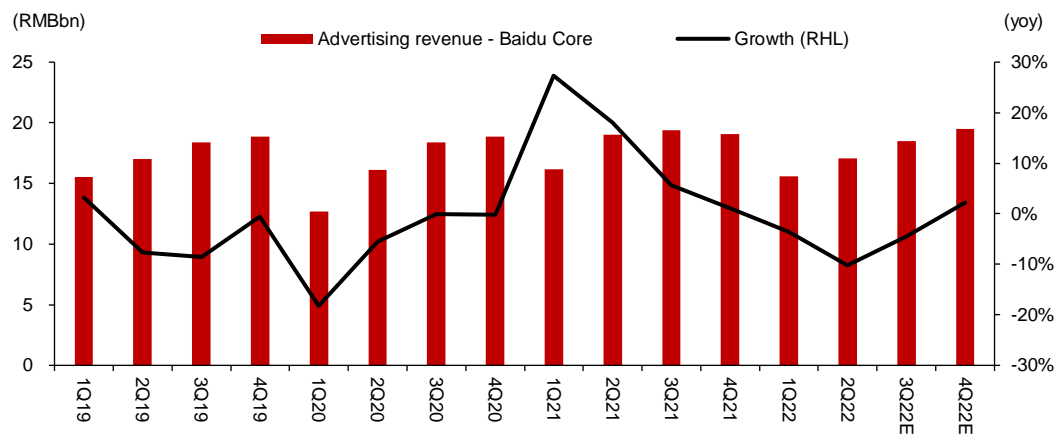
Source: Company data, CMBIGM estimates

Baidu is continuously enhancing its content ecosystem, which lays solid foundation for the recovery of advertising business, in our view. According to Baidu, its monthly active user (MAU) totalled 628mn in 2Q22, up 8.0% YoY, while daily login user reached 84% of total, up from 77% in 2Q21. Aided by the enhancing content ecosystem, we expect Baidu Core's advertising business to gradually recover along with recovering macro. We forecast Baidu core's ads revenue growth of -4.5/+2.2% YoY in 3Q/4Q22E (2Q22:-10%). On an annual basis, we forecast Baidu's core search and feed ads revenue to decline 4.0% YoY in 2022E, owning to pandemic resurgence, but to recover to 6.6% YoY growth in 2023E, driven by recovering macro.

■ **Baidu Cloud: integration of cloud computing with AI makes a differentiation**
Baidu Cloud maintained faster than industry average revenue growth in 1H22 amid macro headwind, which we attributes to its established comparative advantage in industries such as smart transportation, manufacturing, energy & utilities and public services. It strategically focuses on sectors with large demand for intellectualization and with large penetration potentials, such as smart transportation, manufacturing, and utilities, which we believe could help drive long-term sustainable revenue growth.

We forecast 2021-2024E revenue CAGR of 26.3% for Baidu Cloud, among which we estimate pure cloud revenue ex-ASD to achieve a revenue CAGR of 22.8%. Also, we expect Baidu's smart transportation cloud to reach a breakeven in 2H22E, driven by enlarging economies of scale and improving cost structure, and overall cloud segment to achieve a breakeven in two to three years.

1) **Macro headwinds brought short-term headwinds to China Cloud industry, but Baidu Cloud enlarged its market share**
In 1H22, ongoing macro headwinds brought impact to Chinese enterprises' budget for digitization. The pandemic resurgence in April and May also caused delay for some cloud project deployment, which exerted extra pressure on revenue growth in China's cloud

market. According to Canalys data, growth of cloud infrastructure services spending in China slowed to 11% YoY in 2Q22 (2Q21: 53% YoY; 1Q22: 22% YoY).

Figure 13: China: cloud infrastructure spending
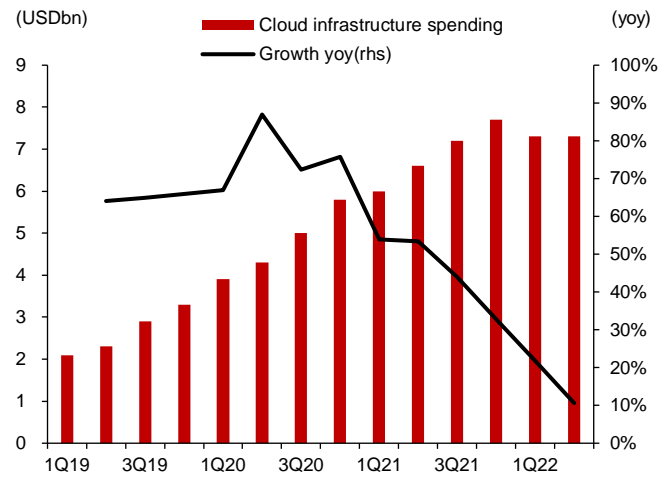
Source: Canalys, CMBIGM

Figure 14: Cloud rev growth of key internet players

Source: Company data, CMBIGM

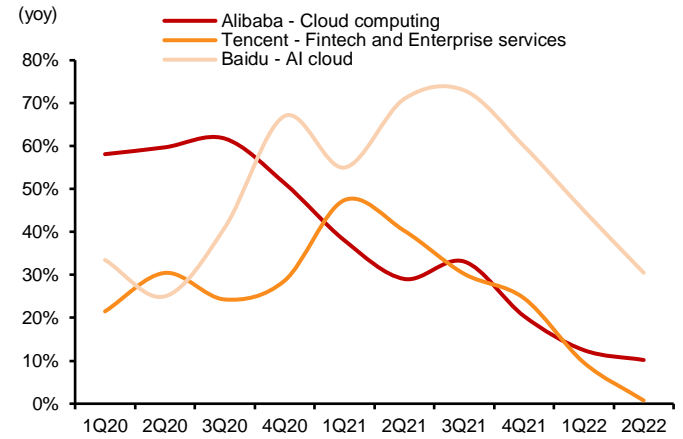Among leading internet players, Baidu achieved the fastest cloud revenue growth of 30.5% YoY in 2Q22, compared to 10.2% YoY for Alibaba Cloud and 0.8% for Tencent's Fintech and enterprise services, which we attributed to Baidu's strong AI capability, as it helped Baidu establish comparative advantage in industries such as smart transportation, manufacturing, energy & utilities and public services. According to Canalys data, Baidu AI Cloud's market share in China's cloud infrastructure spending increased to 9.0% in 2Q22, up from 7.8% in 2Q21 and 8.0% in 2Q20.

Figure 15: China: cloud infrastructure spending market share
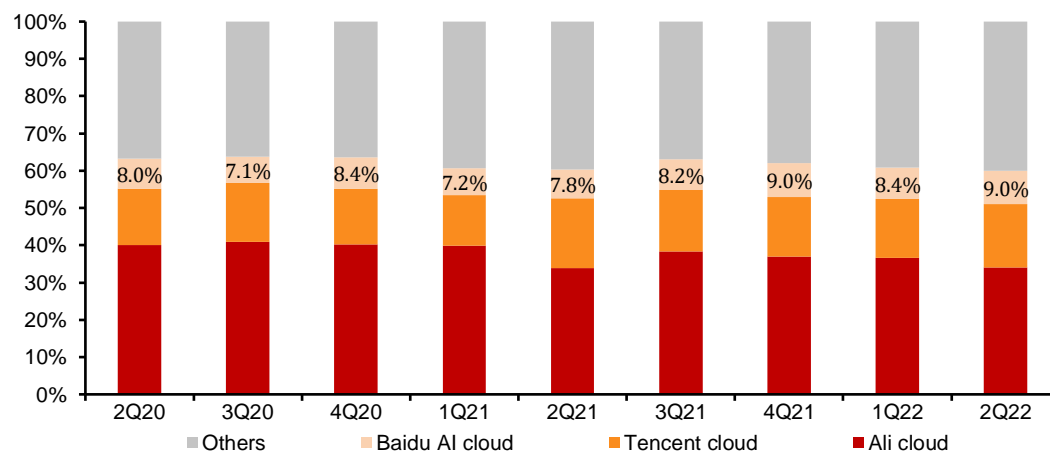
Source: Canalys, CMBIGM

2) Baidu cloud: integration of cloud services and AI capabilities makes a differentiation

Baidu Cloud differentiates itself with peers in two aspects, in our view: 1) strong AI capabilities supported by Paddle Paddel's deep learning platform; 2) Wenxin industrial model, which enables Baidu to provide industry specific solutions, and further enhances Baidu's comparative advantage in key focusing industries. Baidu Cloud's key developing strategy is to focus on key industries by integrating cloud services with AI capabilities. It strategically focuses on sectors with large demand for intellectualization and with large

2

RMB10.3bn from ASD as of 2Q22, the majority of which may only be realized until the mass production of cars, therefore we currently only baked in RMB186mn/904mn/2.6bn revenue generated from ASD in 2022/2023/2024E. We expect its ASD revenue to grow exponentially from 2024 onwards, should its Jidu car be well received by consumers.

Figure 18: Baidu: estimated time to market for production models with ASD

Source: Company presentation, CMBIGM

On an annual basis, we forecast 2021-2024E revenue CAGR of 26.3% for Baidu Cloud (or 22.8% if excluding ASD revenue contribution). We also forecast Baidu's smart transportation cloud to break even in 2H22E, driven by economies of scale, and the overall cloud segment to break even in two to three years.

Figure 19: Baidu Cloud: revenue growth (Qtr)

Source: Canalys, CMBIGM estimates

Figure 20: Baidu Cloud: revenue growth (Annual)

Source: Company data, CMBIGM estimates

■ **Others: monetization of Robotaxi as a long-term growth driver**

Other revenue in Baidu Core mainly comprises of: 1) sales of smart devices and services; 2) revenue from non-marketing consumer-facing services such as membership; and 3) revenue generated from other intelligent driving businesses, such as Robotaxi.

The development of Baidu's ASD and Robotaxi has strong synergies: data generated from ASD could help Robotaxi further enhance its autonomous driving technology, while stemming from Robotaxi's L4 technology could help improve Baidu's ASD solutions.

Figure 21: Developing strategy of Baidu's autonomous driving business

Source: Company presentation, CMBIGM

Road test data is the foundation of autonomous driving (AD) algorithm iteration. Baidu had accumulated about 27mn km of public road test data as of Apr 2022, the highest among all Chinese L4 AD companies. Waymo's vehicles have autonomously driven about 40mn km on public roads based on our estimates. Although the data quality is different, Tesla's autopilot mileage surpassed Waymo's within a short period time, helped by its owners. Tesla owners also help the company accumulate about 60mn km of its Full-Self Driving (FSD) Beta within two years since the program launch in Oct 2020. This also pushes Baidu to accelerate its mass equipment of the ASD functionalities on different cars in a bid to accumulate road test data much faster and continuously take the lead in the L4 development in China.

Baidu divides the AD roadmap into six stages. Different core competences are needed in different stages and different core metrics can be used to measure the degree of development.

For example, in stage one and two, closed road testing and open road testing, test of demo-car, and miles per intervention (MPI) could be the key milestone for measuring the development of the business. AI capability and talent could be the core competency required for differentiation from peers.

In the third and fourth stage, providing ride hailing services and providing driverless ride hailing services could be the key milestone of development, and AI infrastructure, such as big data processing and simulation, are core competence in these two development stages.

In the fifth and sixth stage, key milestone centres on cost per kilometre (CPK): whether the CPK for robotaxi could be significantly lower than that of ride hailing with driver is the most important determinant of success over the long run.

Figure 22: Robotaxi: business development roadmap
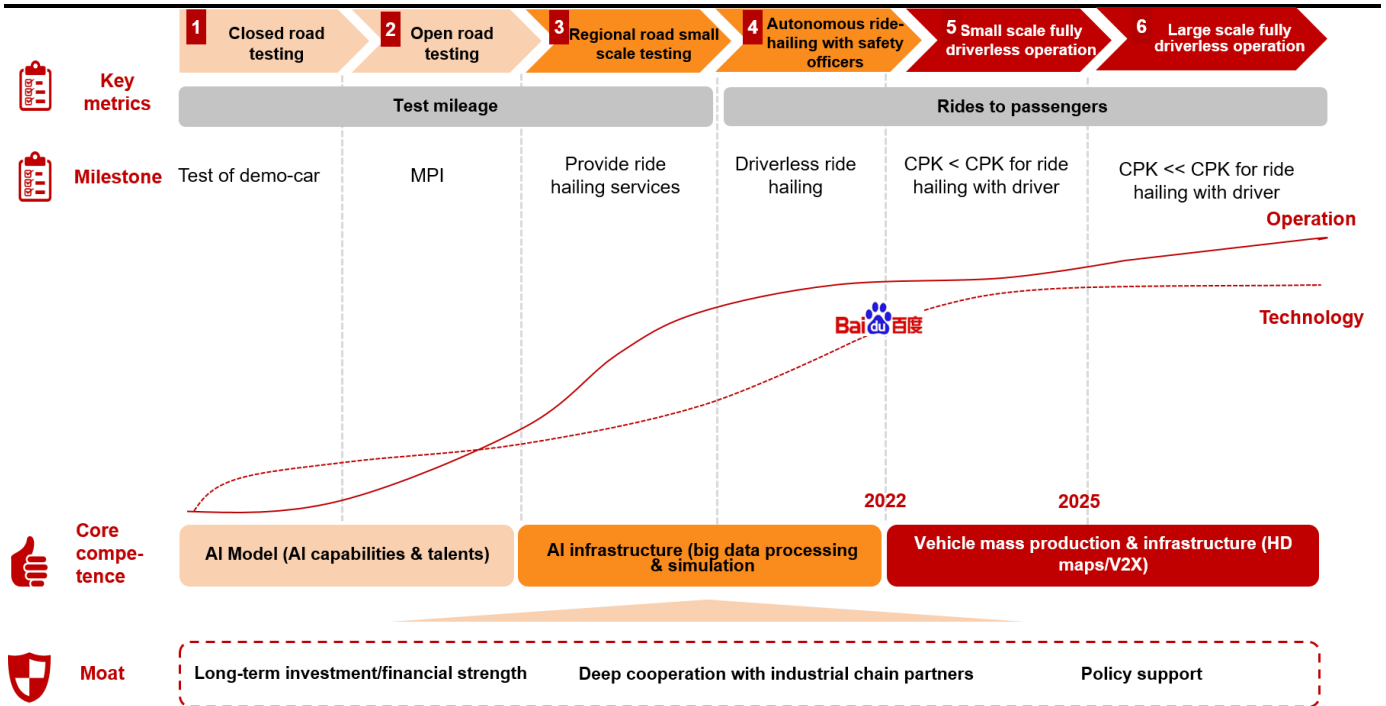
Source: Company data, CMBIGM

Baidu claims that it now stands in the fourth stage of development. With the relevant regulations being relaxed gradually, Baidu has been moving toward the fifth and sixth stages with its pilot robotaxi program's expansion progress on track. According to the company, Apollo Go has expanded to Hefei on 11 July 2022, and is now available in more than ten cities in China, including all the tier-one cities. In addition, Apollo Go was granted the permits to charge fees for driverless ride-hailing services on public roads of the Yizhuang region of Beijing on 20 July 2022.

Management highlighted Apollo Go's operating data during 2022 Baidu World Congress: in Yizhuang, daily rides per vehicle for Apollo Go have exceeded 20, and monthly orders per user exceeded 6 in June 2022. In the fourth week of June 2022, Apollo Go's driverless rides contributed 24% of its total ride completed within the same hour. Yizhuang is a pilot city for Apollo's operation, and the early stage operation data indicated that monetization progress for Apollo is on track, in our view.

■ **Sequential improvement on non-GAAP OPM of Baidu Core likely to sustain**
Baidu Core's non-GAAP OPM was 22.1% in 2Q22, improving from 17.2% in 1Q22, thanks to recovery in ads business and stringent cost control. We expect the sequential margin improvement to sustain in 3Q22 to 22.6%, thanks to further recovery in ads revenue, and improving cloud-offering mix, as Baidu is opting out some low-margin projects.

On a full-year basis, we forecast non-GAAP OPM of 20.9% for Baidu Core in 2022E, down from 23.3% in 2021, owing to pandemic resurgence impact, and increase in revenue mix from relatively low margin non-ads revenue. We estimate non-GAAP OPM to further downtick to 19.2% in 2023E, as we factor in Baidu's determined investment in autonomous driving business to support its long-term growth, but to expand to 20.1% in 2024E, driven by improving cost structure.

Figure 23: Baidu Core: non-GAAP OP and OPM (Qtr)
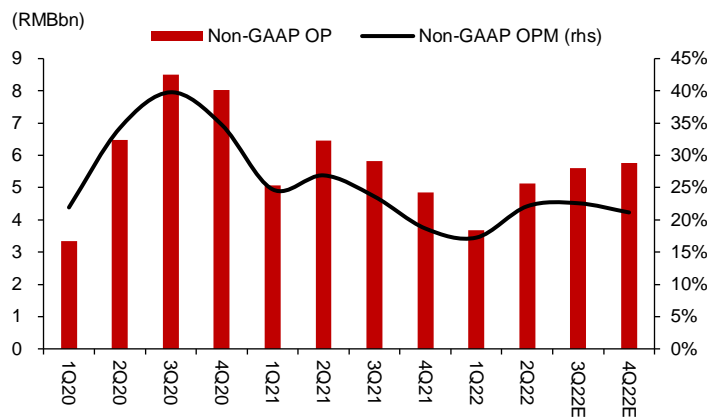
Source: Company data, CMBIGM estimates

Figure 24: Baidu Core: non-GAAP OP and OPM
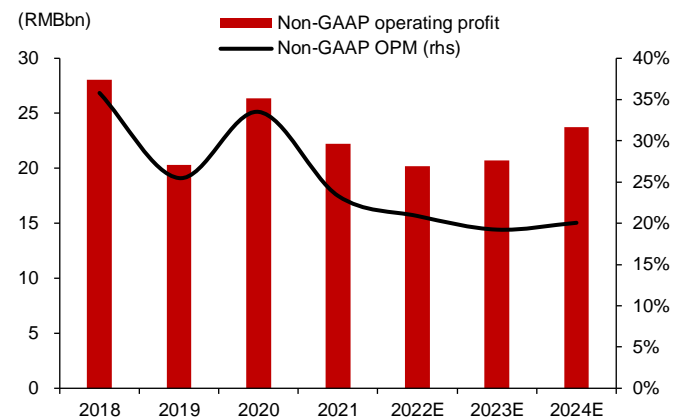
Source: Company data, CMBIGM estimates

iQIYI (22.9% of 2022E revenue)

For iQIYI, we forecast total revenue to decline 6.8% YoY in 2022E, and the soft online advertising revenue generation was the main reason, which we forecast will decline 28.0% YoY, owning to macro headwinds. Management is adopting stringent operating cost control measures and optimizing content cost spending to cope with macro headwinds: in 1H22 non-GAAP net profit was RMB240mn, compared to loss of RMB2.1bn in 1H21. On a full-year basis, we forecast iQIYI to turn around to RMB753mn non-GAAP NP in 2022E (2021: non-GAAP net loss of RMB4.5bn).

Figure 25: iQIYI: revenue and growth
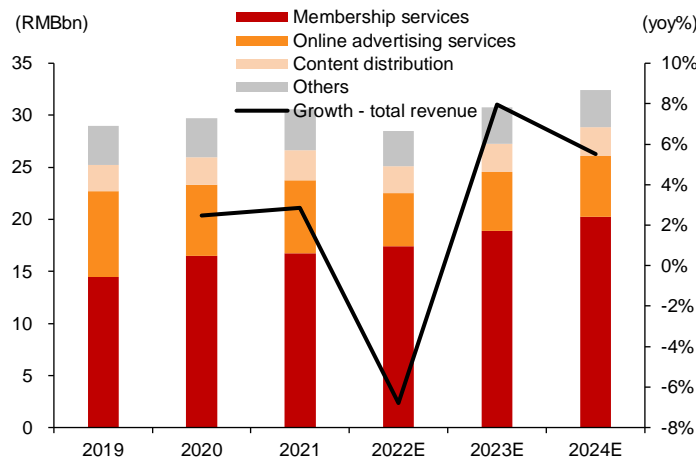
Source: Company data, CMBIGM estimates

Figure 26: iQIYI: non-GAAP net income and NPM
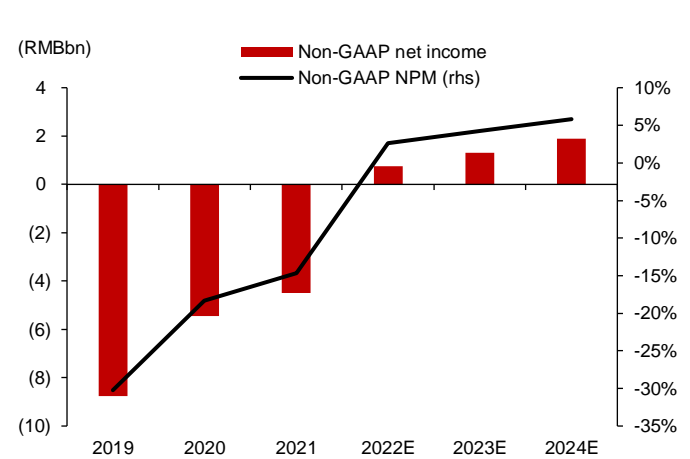
Source: Company data, CMBIGM estimates

SOTP valuation of US$192.8 per ADS

We are using SOTP to value Baidu, as: 1) Baidu's different business lines have different margin profile; and 2) Baidu has a diversified investment portfolio. Currently, we baked in valuation of Apollo ASD and Baidu Cloud to our total Baidu valuation, as Baidu's cloud business has grown into scale and has established comparative advantage, and for ASD business, the pathway towards large-scale monetization is becoming clearer. However, for Robotaxi business, currently we have not baked in the valuation yet, as we are still waiting for the business to grow into scale, but we think the faster than expected development of

Robotaxi business, and more clear runway to achieve large-scale monetization could serve as catalysts for Baidu's stock price.

Our SOTP based target price is US$192.8, which comprises, per ADS:

1) US$55.6 for Baidu Core (main business, excluding Apollo and Baidu Cloud, mainly including the core search and feed ads business), based on 7.0x 2023E non-GAAP PE;

2) US$23.8 for Apollo ASD, based on 2.0x 2030E revenue, and discounted back using a 13.0% WACC; we currently baked in RMB186mn/904mn/2.6bn revenue generated from ASD in 2022/2023/2024E, compared to Baidu's estimated RMB10.3bn cumulative ASD partnership sales recorded in 2Q22;

3) US$45.1 for Baidu Cloud, based on 4.8x 2023E PS, inline with the target multiple that we are giving to its Chinese cloud peers, but is below the average of 5.9x (Fig.28) for overseas comparable companies because its cloud revenue is on a smaller scale;

4) US$61.9 net cash;

5) US$6.4 for iQIYI and other investments, with a 30% holding discount applied to the share price of US$9.1 as of market close on 25 October 2022.

5) US$6.4 for iQIYI and other investments, with a 30% holding discount applied to the share price of US$9.2 as of market close on 25 October 2022.

Figure 27: Baidu: SOTP valuation

Segment	NOPAT (US$mn)	Valuation method/multiple	Valuation (RMBmn)	Valuation (US$mn)	Baidu's stake	Valuation of Baidu's stake (US$mn)	USD/ADS	Valuation as % of total (%)
Core business and cash								
1) Baidu core (ex-Apollo and Cloud)	2,852	7.0x 2023E PE	138,273	19,967	100.0	19,967	55.6	28.9
2) Apollo ASD			59,033	8,525	100.0	8,525	23.8	12.3
3) Baidu Cloud (ex-ASD)		4.8x 2023E PS	112,117	16,190	100.0	16,190	45.1	23.4
4) Net cash			153,743	22,201	100.0	22,201	61.9	32.1
Valuation of core business and cash						**66,883**	**186.4**	**96.7**
iQIYI and strategic investment								
1) iQIYI		Market value	13,122	1,895	51.5	976	2.7	
2) Trip.com group		Market value	96,132	13,882	10.8	1,499	4.2	
3) Uxin		Market value	1,196	173	9.1	16	0.0	
4) HAND Enterprise Solutions		Market value	6,860	991	5.3	52	0.1	
5) Kuaishou		Market value	138,620	20,017	3.1	622	1.7	
6) Yusys Technologies		Market value	15,260	2,204	5.1	113	0.3	
Valuation of iQIYI and investments						**3,278**	**9.1**	
Valuation of iQIYI and investment (with 30% holding discount)						**2,294**	**6.4**	**3.3**
Total Baidu valuation (US$mn)						**69,178**		
Number of ADS outstanding (mn)						**359**		
Valuation per ADS (US$)						**192.8**		

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 25 October market close.

Figure 28: Cloud computing: peers valuation comps

Companies	Ticker	Price	Revenue growth (YoY%)			PS(x)		
		(US$)	2022E	2023E	2024E	2022E	2023E	2024E
Microsoft	MSFT US	250.7	14.0	12.0	13.0	8.9	8.0	7.1
Google	GOOG US	104.9	(8.0)	12.3	12.8	5.7	5.1	4.5
Salesforce	CRM US	165.3	17.4	14.7	16.9	5.3	4.7	4.0
Average						**6.7**	**5.9**	**5.2**

Source: Bloomberg, CMBIGM
Note: data as of 25 October 2022

Our target price translates into 22.0/22.1x 2022/2023E PE on non-GAAP basis, or 15.7/15.7x if excluding net cash. Baidu is currently trading at 9.8x 2022E non-GAAP PE, standing near its three year average non-GAAP TTM PE minus two standard deviation. We identify key catalyst for the share price to be: 1) recovery in macro conditions, which could

drive a recovery for Baidu's advertising business; 2) faster than expected development on new business, such as large scale ASD revenue generation to come in earlier than expected; and cloud business to achieve breakeven earlier than expectation.

Figure 29: Baidu: non-GAAP PE band over the past three year (TTM)
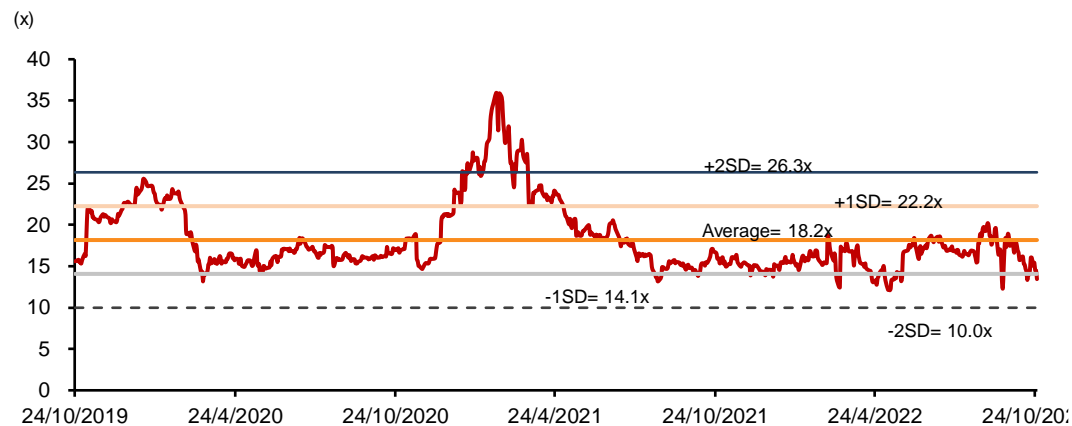
Source: Company data, Bloomberg, CMBIGM

Risk

Pace of monetization for new businesses is slower than we expect.

Financial Summary

INCOME STATEMENT	2019A	2020A	2021A	2022E	2023E	2024E
YE 31 Dec (RMB mn)						
Revenue	107,413	107,074	124,493	124,309	137,657	149,812
Cost of goods sold	(62,850)	(55,158)	(64,314)	(64,717)	(71,483)	(76,517)
Gross profit	44,563	51,916	60,179	59,592	66,174	73,296
Operating expenses	(38,256)	(37,576)	(49,661)	(44,940)	(50,262)	(53,635)
SG&A expense	(19,910)	(18,063)	(24,723)	(20,262)	(23,677)	(25,318)
R&D expense	(18,346)	(19,513)	(24,938)	(24,678)	(26,585)	(28,317)
Operating profit	6,307	14,340	10,518	14,652	15,912	19,660
Share of (losses)/profits of associates/JV	(1,254)	(2,248)	(932)	(1,211)	66	360
Adjusted EBITDA	18,416	27,504	24,914	27,790	29,392	33,595
Net Interest income/(expense)	3,100	2,255	2,130	3,087	2,908	3,386
Foreign exchange gain/loss	(33)	(660)	100	(340)	(272)	(218)
Other income/expense	(8,460)	9,403	(1,038)	(2,987)	0	0
Pre-tax profit	(340)	23,090	10,778	13,201	18,614	23,189
Income tax	(1,948)	(4,064)	(3,187)	(3,024)	(4,609)	(5,456)
After tax profit	(2,288)	19,026	7,591	10,177	14,005	17,733
Minority interest	(4,345)	(3,446)	(2,635)	32	190	456
Net profit	2,057	22,472	10,226	10,145	13,815	17,277
Adjusted net profit	18,182	22,020	18,830	20,337	20,494	24,084

BALANCE SHEET	2019A	2020A	2021A	2022E	2023E	2024E
YE 31 Dec (RMB mn)						
Current assets	165,562	183,342	213,315	219,188	245,973	276,346
Cash & equivalents	33,443	35,782	36,850	43,276	67,586	95,634
Restricted cash	996	758	10,821	10,821	10,821	10,821
Account receivables	7,416	8,668	9,981	9,195	10,183	11,082
Other current assets	123,707	138,134	155,663	155,895	157,382	158,810
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	375,356	399,840	427,622
Current liabilities	57,380	68,385	74,488	73,952	77,181	80,239
Short-term borrowings	2,618	3,016	4,168	4,168	4,168	4,168
Account payables	32,701	36,716	41,384	40,869	42,617	44,328
Other current liabilities	22,061	28,653	28,936	28,916	30,396	31,743
Non-current liabilities	71,121	72,480	81,594	67,665	66,426	64,722
Long-term borrowings	7,804	0	12,629	0	0	0
Bond payables	50,387	60,335	55,772	54,472	53,233	51,529
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	141,618	143,606	144,961
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	173,362	195,522	221,614
Other reserves	1,109	3,102	7,148	7,148	7,148	7,148
Total shareholders equity	164,708	185,798	218,607	228,393	250,888	277,315
Minority interest	8,107	6,045	5,345	5,345	5,345	5,345
Total equity and liabilities	301,316	332,708	380,034	375,356	399,839	427,622

CASH FLOW	2019A	2020A	2021A	2022E	2023E	2024E
YE 31 Dec (RMB mn)						
Operating						
Profit before taxation	**(340)**	**23,090**	**10,778**	**13,201**	**18,614**	**23,189**
Depreciation & amortization	19,161	18,180	16,438	5,126	4,946	4,685
Tax paid	(1,948)	(4,064)	(3,187)	(3,024)	(4,609)	(5,456)
Change in working capital	(6,687)	(18,207)	(18,691)	18	754	732
Others	18,272	5,201	14,784	7,357	7,471	7,676
Net cash from operations	**28,458**	**24,200**	**20,122**	**22,677**	**27,176**	**30,826**
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	(281)	(221)	(685)
Net cash from financing	**(3,873)**	**5,665**	**23,396**	**(12,910)**	**(221)**	**(685)**
Net change in cash						
Cash at the beginning of the year	29,827	34,439	36,540	47,671	54,097	78,407
Exchange difference	1	(212)	(943)	0	0	0
Cash at the end of the year	**34,439**	**36,540**	**47,671**	**54,097**	**78,407**	**106,455**

GROWTH	2019A	2020A	2021A	2022E	2023E	2024E
YE 31 Dec						
Revenue	5.0%	(0.3%)	16.3%	(0.1%)	10.7%	8.8%
Gross profit	(11.8%)	16.5%	15.9%	(1.0%)	11.0%	10.8%
Operating profit	(59.4%)	127.4%	(26.7%)	39.3%	8.6%	23.6%
Net profit	(92.5%)	992.5%	(54.5%)	(0.8%)	36.2%	25.1%
Adj. net profit	(24.2%)	21.1%	(14.5%)	8.0%	0.8%	17.5%

PROFITABILITY	2019A	2020A	2021A	2022E	2023E	2024E
YE 31 Dec						
Gross profit margin	41.5%	48.5%	48.3%	47.9%	48.1%	48.9%
Operating margin	5.9%	13.4%	8.4%	11.8%	11.6%	13.1%
Adj. net profit margin	16.9%	20.6%	15.1%	16.4%	14.9%	16.1%
Return on equity (ROE)	1.3%	12.8%	5.1%	4.5%	5.8%	6.5%

GEARING/LIQUIDITY/ACTIVITIES	2019A	2020A	2021A	2022E	2023E	2024E
YE 31 Dec						
Net debt to equity (x)	(0.5)	(0.5)	(0.5)	(0.6)	(0.6)	(0.7)
Current ratio (x)	2.9	2.7	2.9	3.0	3.2	3.4
Receivable turnover days	22.5	27.0	27.0	27.8	25.3	25.5
Payable turnover days	195.0	226.5	218.6	228.8	210.2	204.5

VALUATION	2019A	2020A	2021A	2022E	2023E	2024E
YE 31 Dec						
P/E	154.5	13.1	42.3	20.4	15.1	12.2
P/E (diluted)	154.8	13.2	43.2	20.8	15.4	12.5
P/B	1.9	1.6	2.0	0.9	0.8	0.8
P/CFPS	14.5	15.5	47.9	10.8	8.6	7.5

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

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