

# China Software & IT Services

## China cloud market to recover in 2022E

We expect China cloud market to recover in 2022E and Huawei will continue to gain share from AliCloud/ Tencent Cloud as the cloud market demand is now driven by enterprise cloud migration and that Huawei has an edge on it. For IDC, we believe the tightening energy requirement could negatively impact IDC margin. Among the cloud players, we prefer Chinasoft (Huawei Cloud exposure), GDS (AliCloud capex rebound) over Kingsoft Cloud (market share loss).

- **Hyperscaler capex to recover in 2022E on low base.** We expect China cloud capex to rebound at 15-20% YoY in 2022E as 1) hyperscalers underspent in 2021 (BAT operating capex merely grew at +1.3% YoY in 9M21 vs. +28% YoY in 2020) and 2) it is time to replace servers bought in 2018 (3-5 years replacement cycle) when component shortage and regulatory issues diminish gradually in 2022. Meanwhile, we think Alibaba remains committed to cloud, as reflected in its total area committed to GDS (+46% YoY in 3Q21) despite cloud landscape change.
- **Huawei to remain aggressive in cloud, IaaS/ PaaS demand comes from enterprise/ govt cloud migration.** We believe China IaaS/ PaaS market will still be growing at 30-40% YoY and Huawei will continue to gain share from Alibaba and Tencent as public cloud market demand is now driven by enterprise cloud migration instead of internet applications. In particular, Huawei has the edge in providing hybrid cloud to services to gov't and industrial sector. On 20 Jan 2022, [Reuters](#) reported that the U.S. gov't may prohibit U.S. customers in using AliCloud services. We believe this has minimal impact to Alicloud business as 1) U.S. accounted for <1% of AliCloud revenue per Gartner estimate and 2) U.S. customers mainly use AWS (operating through Beijing Sinnet)/ Azure 21Vianet) in China.
- **Tightening energy requirement negative to IDC margin.** For the IDC sector, rising cloud capex in 2022E should create support to IDC demand. On the supply side, in spite of move-in delays amid internet sector headwinds and power shortage, IDC operators became even more aggressive in capex (M&A) in 3Q21 as they foresee that land and energy permit will become more difficult to obtain going forward. The constrained supply could provide grounds for IDC to raise price in a longer term. In 2022E, we think coal-fueled utility price will come down gradually as supply relieves. However, IDC will spend more on green energy and IDC margin may face downward pressure.
- **Prefer Chinasoft (Huawei cloud exposure), GDS (AliCloud capex rebound) over Kingsoft Cloud (market share loss).** We cut GDS FY21-23E adj. EBITDA by 2-5% to reflect higher utility cost that comes with increasing green energy usage. We trimmed Kingsoft Cloud FY21-23E revenue by 5-9% to factor in market share loss (customers are mainly internet companies). Among the cloud players, we prefer Chinasoft/ GDS over Kingsoft Cloud.

### Valuation Table

Company	Ticker	Rating	Price (LC)	TP (LC)	EV/sales FY21E	P/E FY21E	ROE FY21E	Sales CAGR FY20-23E
Chinasoft	354 HK	BUY	8.74	11.26	1.1	21.2	12%	24%
Kingsoft Cloud	KC US	BUY	10.68	16.74	1.4	N/A	-21%	35%
GDS	GDS US	BUY	41.90	61.06	9.6	N/A	-4%	28%
GDS	9698 HK	BUY	40.45	59.13	9.6	N/A	-4%	28%

Source: Bloomberg, CMBIS estimates

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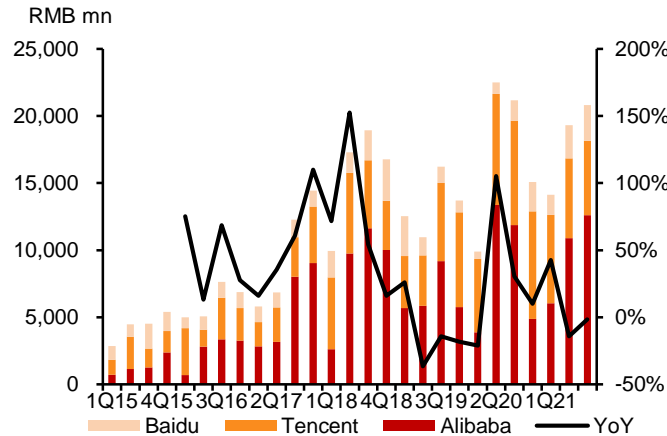
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### Related Reports

1. "China cloud outlook mixed" – 4 Nov 2021
2. "Implications of setting up state-owned cloud" – 30 Aug 2021
3. "China cloud landscape changing" – 11 Aug 2021

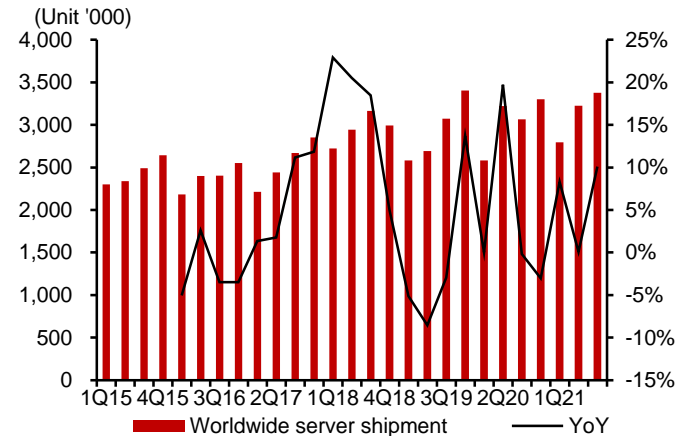
**Focus Charts**

**Figure 1: BAT operating capex (quarterly)**



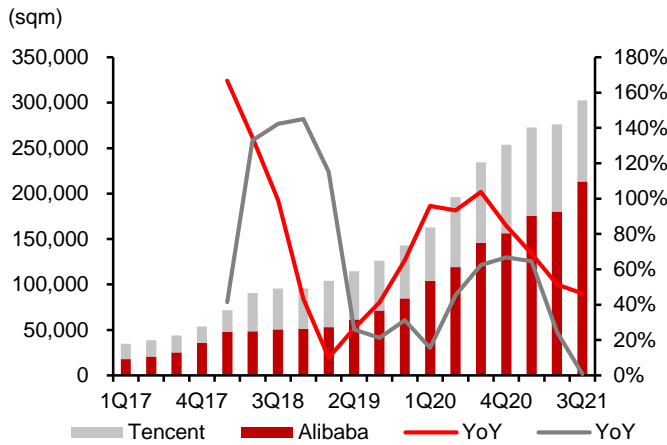
Source: Company data, CMBIS

**Figure 2: Global server shipment**



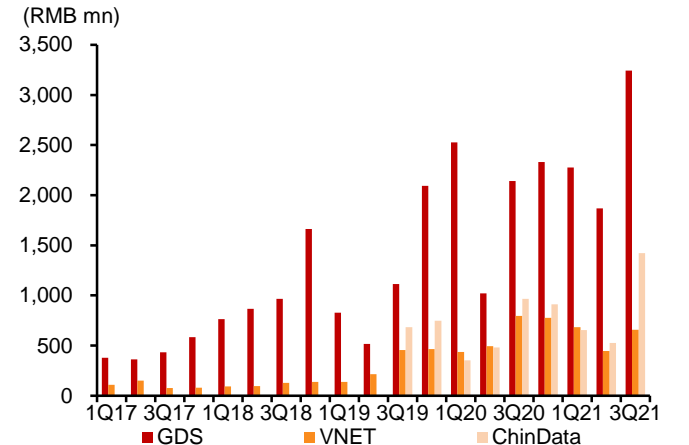
Source: IDC, CMBIS

**Figure 3: GDS total committed area (Ali vs. Tencent)**



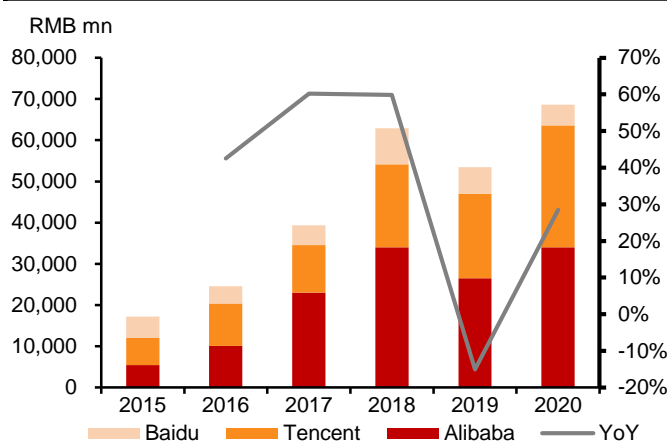
Source: Company data, CMBIS

**Figure 4: Third party IDC capex**



Source: Company data, CMBIS

**Figure 5: BAT capex (yearly)**



Source: Company data, CMBIS

**Figure 6: China public cloud market share**

China IaaS + PaaS	2Q20	1Q21	2Q21	YoY	QoQ
<b>Market size (US\$bn)</b>	5.18	4.6	7.68	48%	66%
<b>Market share</b>					
Alibaba	40.8%	39.9%	36.7%	-4.1%	-3.2%
Tencent	11.9%	11.4%	11.1%	-0.9%	-0.3%
Huawei	8.7%	10.9%	10.9%	2.2%	0.0%
China Telecom	7.4%	7.8%	8.6%	1.2%	0.8%
AWS	7.2%	7.2%	7.7%	0.5%	0.5%
Others	23.8%	22.8%	25.0%	1.2%	2.2%

Source: IDC, CMBIS

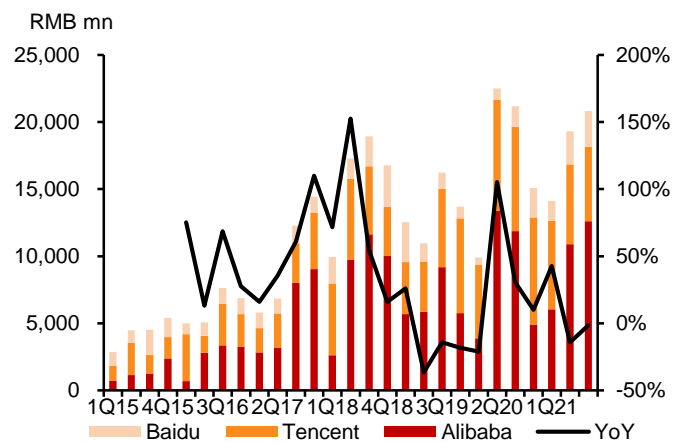
## Cloud capex: Hyperscale capex to slightly recover in 2022E

**Hyperscaler capex to rebound from low base.** Looking into 2022E, we expect China hyperscale cloud capex to rebound at around +15-20% YoY. In 2021, China's hyperscale cloud operators were conservative in cloud spending. In 9M21, BAT operating capex merely grew at +1.3% YoY (vs. +28% YoY in 2020). Apart from high-base impact (due to COVID-19), component shortage and tightening policy towards the internet sector also resulted in the cloud capex slowdown.

**Time to replace 2018 servers.** Apart from low-base effect, another driver to 2022 capex rebound is server replacement. 2018 was a big cycle for China cloud capex as short video market soared. Server replacement cycle is typically 3-5 years and internet companies underspent in 2021. As component shortage and regulatory impacts to diminish marginally, we expect a recovery in cloud capex by hyperscalers.

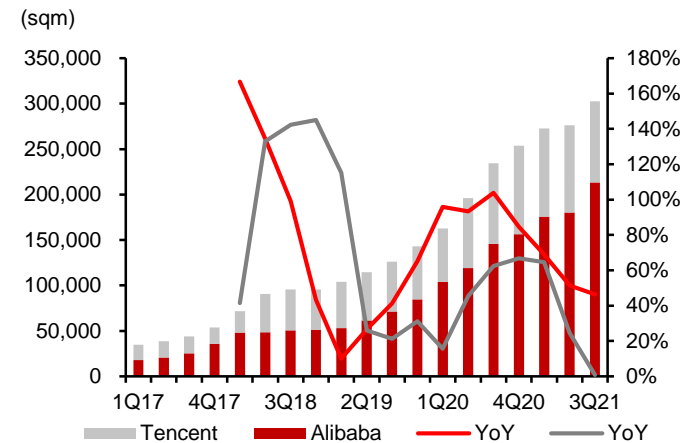
**Commitment to IDC remained strong.** Despite China cloud landscape change (Huawei cloud gaining share from AliCloud), Alibaba remains committed to cloud, as reflected in its total area committed to GDS. In 3Q21, regardless of internet sector weakness, total committed area by Alibaba still increased at +46% YoY. This should support our view that hyperscalers remain positive on the long-term cloud market outlook.

**Figure 7: BAT capex**



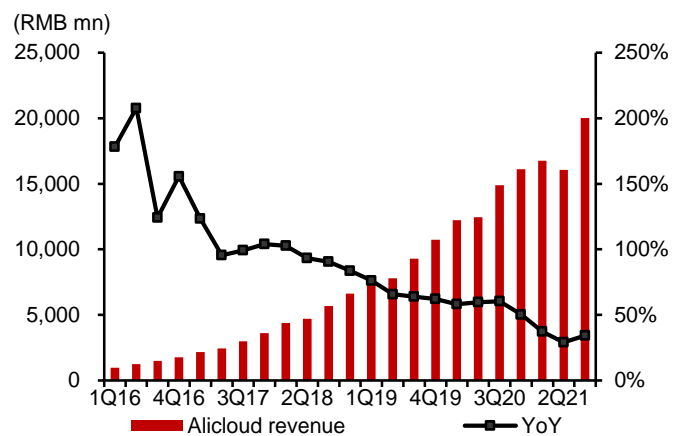
Source: Company data, CMBIS

**Figure 8: GDS total committed area (Ali vs. Tencent)**



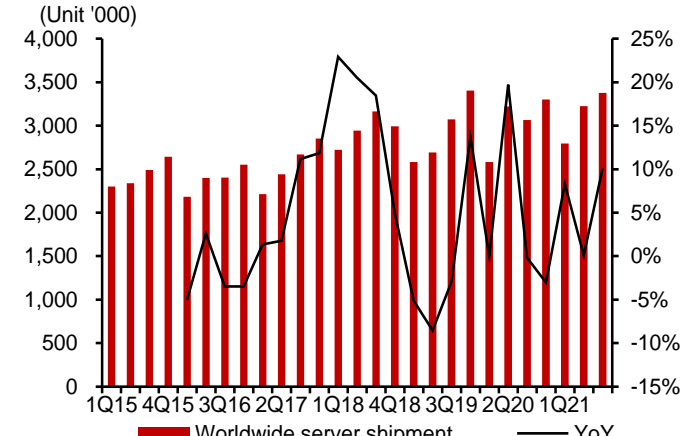
Source: Company data, CMBIS

**Figure 9: Alibaba cloud revenue**



Source: Company data, CMBIS

**Figure 10: Global server shipment**



Source: IDC, CMBIS

## IaaS/ PaaS: Huawei share gain to continue

In 2022E, we believe China IaaS/ PaaS market will still be growing at 30-40% YoY and Huawei will continue to gain share from Alibaba and Tencent as public cloud market demand is now driven by enterprises instead of internet companies.

**Non-internet industry driving IaaS/ PaaS demand.** In CY9M21, Alibaba Cloud revenue increased at only +34% YoY, slowed down from +59% YoY a year ago (CY9M20). Alicloud growth slowdown was largely affected by its customer mix that skewed towards Chinese internet companies. With no new internet applications amid regulatory headwinds, we expect non-internet industry to drive IaaS/ PaaS demand in 2022E.

**Huawei has an edge in providing hybrid cloud to government and industrial customers.** Given closer relationship with government and large industrial/ manufacturing enterprises, Huawei has an edge in promoting its cloud services to these customers. In 2022E, we think Huawei will continue to gain share from the internet cloud service providers.

**Potential U.S. regulation on AliCloud is immaterial.** On 20 Jan 2022, Reuters reported that the U.S. government is examining AliCloud on national security concern and that U.S. customers may be prohibited from using its cloud services. We think earnings impact to AliCloud is immaterial as 1) AliCloud U.S. business is small (US\$50mn or <1% of AliCloud CY20 revenue, according to Gartner) and 2) U.S. MNC mainly use AWS (operating through Beijing Sinnet/ NWCD)/ Azure (operating through 21Vianet) in China.

Figure 11: Internet sector is a core industry to AliCloud



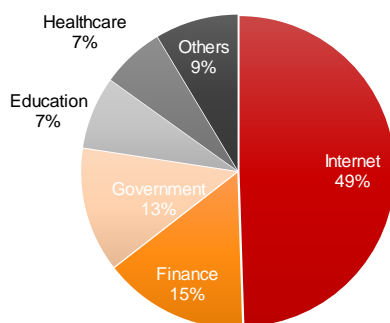
Source: Company data, CMBIS

Figure 12: China public cloud market share

China IaaS + PaaS	2Q20	1Q21	2Q21	YoY	QoQ
Market size (US\$bn)	5.18	4.6	7.68	48%	66%
Market share					
Alibaba	40.8%	39.9%	36.7%	-4.1%	-3.2%
Tencent	11.9%	11.4%	11.1%	-0.9%	-0.3%
Huawei	8.7%	10.9%	10.9%	2.2%	0.0%
China Telecom	7.4%	7.8%	8.6%	1.2%	0.8%
AWS	7.2%	7.2%	7.7%	0.5%	0.5%
Others	23.8%	22.8%	25.0%	1.2%	2.2%

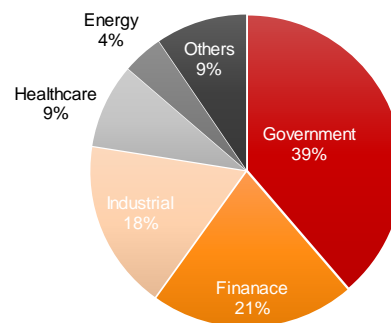
Source: IDC, CMBIS \*IDC included hybrid cloud in public cloud calculation

Figure 13: 2020 China pure public cloud market structure



Source: iResearch, CMBIS

Figure 14: 2020 China non-public cloud market structure



Source: iResearch, CMBIS

## IDC: Tightening energy requirement adds pressure to margin

On the demand side, internet companies are expected to raise cloud capex in 2022E. This should create support to IDC revenue. On the supply side, in spite of move-in delays by hyperscalers amid internet sector headwinds and power shortage, we observed that IDC operators became more aggressive in capex (M&A) in 3Q21.

**Demand for IDC remains intact.** We think move-in delays in 2H21 was temporary (prior 4-5 quarters, now 7-8 quarters). For wholesale customers like hyperscale cloud providers, as a part of the contract term, they will need to move-in within two years. IDC operators foresee that land and energy permit will become more difficult to obtain going forward as China calls for greener data center and carbon reduction. Tighter regulations in energy usage should speed up market consolidation. In a longer term perspective, the constrained supply should provide grounds for IDC operators to raise price.

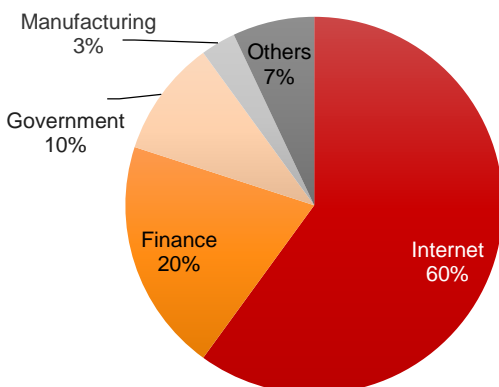
**But tightening energy requirement could weigh on margin:** In 2022E, electricity price remains the biggest pressure to margin as it accounted for 57% of data center total operating cost, according to iResearch. We think power shortage issue will be gradually relieved in 2022E and coal-fueled utility price will come down. However, IDC will have to spend more money in purchasing green energy and green certificates in order to increase renewable energy usage. Full year speaking, this would result in a flattish or slight margin decline for IDC operators, in our view.

**Figure 15: Factors affecting IDC outlook**

Factors	2022E trend	Impacts	Revenue	Margin
Internet cloud capex	Up	Higher demand for IDC capacity, positive to IDC revenue	Positive	
IDC capex	Down	Supply and demand will be more balanced as it becomes difficult to obtain power and land quota for IDC.	Positive to ASP in a longer term	
Coal-fueled price	Down	Lower utility price		Positive
Green energy usage	Up	Higher spending on green certificate, green energy purchase		Negative
Energy level regulations	Up	Accelerate market consolidation	Positive to ASP in a longer term	

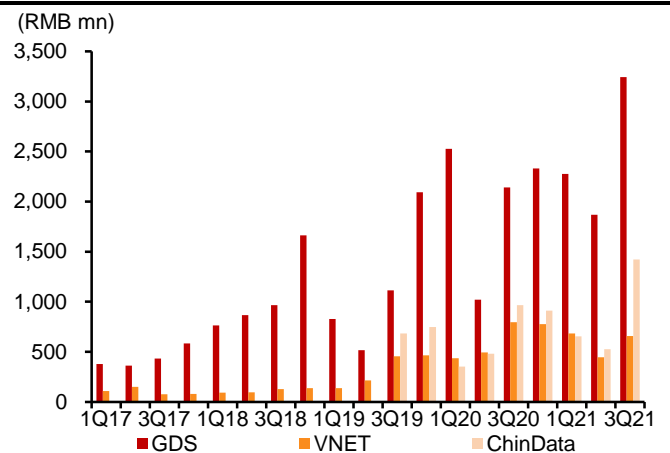
Source: Company data, CMBIS

**Figure 16: IDC downstream customer mix (2019)**



Source: iResearch, CMBIS

**Figure 17: IDC capex**



Source: Company data, CMBIS

## GDS (GDS US/ 9698 HK, BUY, TP US\$61.06/ HK\$59.13)

### Earnings revision

**Figure 18: Earnings revision**

RMB mn	2021E			2022E			2023E		
	New	Old	%Diff	New	Old	%Diff	New	Old	%Diff
Sales	7,773	7,871	-1%	9,967	10,096	-1%	12,072	12,113	-0%
Gross profit	1,742	2,052	-15%	2,253	2,741	-18%	2,619	3,433	-24%
OP Profit	555	819	-32%	840	1,271	-34%	1,001	1,777	-44%
Adj. EBITDA	3,656	3,724	-2%	4,500	4,632	-3%	5,348	5,613	-5%
PBT	-943	-745	n.a.	-950	-724	n.a.	-1,135	-648	n.a.
Net profit	-1,273	-989	n.a.	-1,314	-977	n.a.	-1,541	-875	n.a.
EPS	-0.89	-0.69	n.a.	-0.92	-0.68	n.a.	-1.08	-0.61	n.a.
<b>Margins</b>									
GM	22.4%	26.1%	-365 bps	22.6%	27.1%	-454 bps	21.7%	28.3%	-665 bps
OPM	7.1%	10.4%	-327 bps	8.4%	12.6%	-417 bps	8.3%	14.7%	-637 bps
Adj. EBITDA margin	47.0%	47.3%	-27 bps	45.2%	45.9%	-73 bps	44.3%	46.3%	-203 bps
PBT margin	-12.1%	-9.5%	-266 bps	-9.5%	-7.2%	-236 bps	-9.4%	-5.3%	-405 bps
Net margin	-16.4%	-12.6%	-381 bps	-13.2%	-9.7%	-350 bps	-12.8%	-7.2%	-554 bps
<b>Key assumptions</b>									
Total area in service	500,972	466,694	7%	616,196	583,368	6%	776,407	740,877	5%
Total area utilized	315,613	326,043	-3%	401,834	401,306	0%	492,583	501,991	-2%
Avg. utilization rate	66%	70%	-411 bps	65%	69%	-401 bps	64%	68%	-414 bps
Average MSR	2,253	2,306	-2%	2,186	2,253	-3%	2,148	2,169	-1%
Depreciation	2,534	2,299	10%	3,282	2,932	12%	4,094	3,459	18%

Source: Company data, CMBIS

**Figure 19: CMBI estimates vs consensus**

RMB mn	2021			2022			2023		
	CMBI	Street	Diff	CMBI	Street	Diff	CMBI	Street	Diff
Sales	7,773	7,799	-0%	9,967	9,956	0%	12,072	12,432	-3%
Gross profit	1,742	1,884	-8%	2,253	2,436	-7%	2,619	3,297	-21%
Operating profit	555	659	-16%	840	881	-5%	1,001	1,454	-31%
Adj. EBITDA	3,656	3,662	-0%	4,500	4,654	-3%	5,348	5,817	-8%
Net profit	-1,273	-1,116	n.a.	-1,314	-1,199	n.a.	-1,541	-779	n.a.
EPS	-0.89	-3.65	n.a.	-0.92	-2.66	n.a.	-1.08	-1.60	n.a.
<b>Margins</b>									
GM	22.4%	24.2%	-175 bps	22.6%	24.5%	-186 bps	21.7%	26.5%	-483 bps
OPM	7.1%	8.5%	-132 bps	8.4%	8.8%	-42 bps	8.3%	11.7%	-340 bps
Adj. EBITDA margin	47.0%	47.0%	7 bps	45.2%	46.7%	-160 bps	44.3%	46.8%	-249 bps
Net margin	-16.4%	-14.3%	-206 bps	-13.2%	-12.0%	-114 bps	-12.8%	-6.3%	-650 bps

Source: Company data, CMBIS

**Figure 20: Quarterly model**

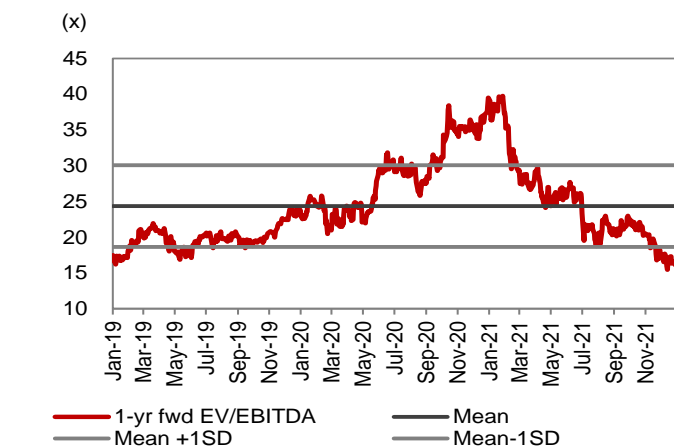
RMB mn	4Q20	1Q21	2Q21	3Q21	4Q21E	1Q22E	2Q22E	3Q22E
Revenues	1,632	1,706	1,864	2,061	2,142	2,210	2,413	2,650
Gross Profit	430	397	440	455	450	452	554	657
Adj. EBITDA	758	818	896	962	980	968	1,076	1,210
Net profit (loss)	-294	-301	-325	-337	-309	-397	-339	-253
EPS (RMB)	-0.21	-0.21	-0.22	-0.23	-0.21	-0.27	-0.23	-0.17
<b>Key assumptions</b>								
Total area in service (EoP)	333,853	359,780	425,019	452,830	500,972	521,681	573,776	606,792
Total area utilized (EoP)	234,731	251,063	281,650	300,328	315,613	341,817	372,638	401,658
Utilization rate (area utilized/ area in service)	70%	70%	66%	66%	63%	66%	65%	66%
Average MSR (Rmb / Sqm / Month)	2,406	2,339	2,331	2,361	2,312	2,237	2,248	2,280
Depreciation	478	560	620	698	711	755	788	821
<b>Margins</b>								
Gross margin	26%	23%	24%	22%	21%	20%	23%	25%
Adj. EBITDA margin	46%	48%	48%	47%	46%	44%	45%	46%
Net margin	-18%	-18%	-17%	-16%	-14%	-18%	-14%	-10%
<b>Growth (QoQ)</b>								
Revenues	7%	5%	9%	11%	4%	3%	9%	10%
Gross Profit	5%	-8%	11%	4%	-1%	0%	23%	19%
Adj. EBITDA	6%	8%	10%	7%	2%	-1%	11%	12%
Net profit (loss)	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
<b>Growth (YoY)</b>								
Revenues	40%	38%	40%	35%	31%	29%	29%	28%
Gross Profit	46%	13%	22%	11%	5%	14%	26%	44%
Adj. EBITDA	43%	43%	41%	34%	29%	18%	20%	26%
Net profit (loss)	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.

Source: Company data, CMBIS

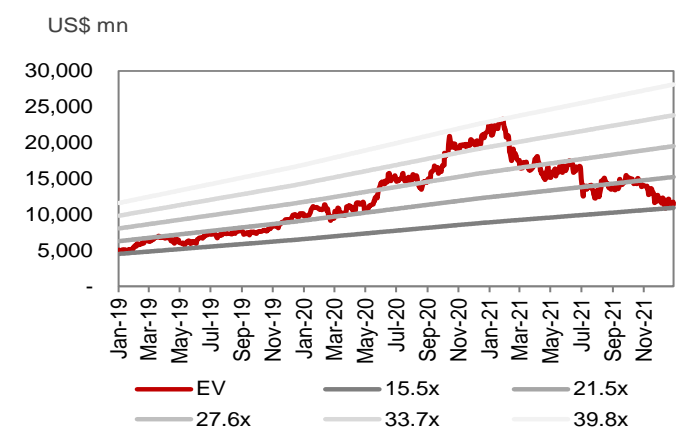
**Valuation**

We maintain our BUY recommendation on GDS with new target price of US\$61.06/ HK\$59.13 (prior US\$73.01/ HK\$70.70), based on lowered 23x (prior 25x) FY22E adj. EV/EBITDA, 10% discount to its 3-year mean to margin uncertainty although the long term trend that China is increasing cloud investment growth remains unchanged.

We use EV/EBITDA as the valuation methodology as it better reflects IDC operating profitability than P/E given high depreciation expense during ramp-up stage and large interest expense gap between peers if capital structure is different.

**Figure 21: GDS US 12M forward EV/EBITDA chart**

Source: Bloomberg, CMBIS

**Figure 22: GDS US 12M forward EV/EBITDA band**

Source: Bloomberg, CMBIS

## Kingsoft Cloud (KC US, BUY, TP US\$16.74)

### Earnings revision

**Figure 23: Earnings revision**

RMB mn	2021E			2022E			2023E		
	New	Old	%Diff	New	Old	%Diff	New	Old	%Diff
Sales	9,054	9,054	-	11,984	12,644	-5%	16,083	17,690	-9%
Gross profit	418	518	-19%	834	1,264	-34%	1,864	2,677	-30%
OP Profit	-1,604	-1,489	n.a.	-1,640	-1,335	n.a.	-899	-342	n.a.
Adj. EBITDA	-242	-116	n.a.	104	450	n.a.	770	1,390	n.a.
Net profit	-1,405	-1,135	n.a.	-1,483	-1,019	n.a.	-806	-57	n.a.
EPS	-6.31	-5.10	n.a.	-6.66	-4.58	n.a.	-3.62	-0.25	n.a.
<b>Margins</b>									
GM	4.6%	5.7%	-110 bps	7.0%	10.0%	-304 bps	11.6%	15.1%	-354 bps
OPM	-17.7%	-16.4%	-127 bps	-13.7%	-10.6%	-313 bps	-5.6%	-1.9%	-366 bps
Adj. EBITDA margin	-2.7%	-1.3%	-139 bps	0.9%	3.6%	-269 bps	4.8%	7.9%	-307 bps
Net margin	-15.5%	-12.5%	-298 bps	-12.4%	-8.1%	-431 bps	-5.0%	-0.3%	-469 bps

Source: Company data, CMBIS

**Figure 24: CMBI vs. consensus forecast**

RMB mn	2021E			2022E			2023E		
	CMBI	Street	Diff	CMBI	Street	Diff	CMBI	Street	Diff
Sales	9,054	9,201	-2%	11,984	13,001	-8%	16,083	18,476	-13%
Gross profit	418	428	-2%	834	1,151	-28%	1,864	2,157	-14%
Operating profit	-1,604	-1,515	n.a.	-1,640	-1,367	n.a.	-899	-607	n.a.
Adj. EBITDA	-242	-521	n.a.	104	-150	n.a.	770	695	n.a.
Net profit	-1,405	-1,285	n.a.	-1,483	-1,077	n.a.	-806	-319	n.a.
EPS	-6.31	-5.67	n.a.	-6.66	-3.88	n.a.	-3.62	-1.06	n.a.
<b>Margins</b>									
GM	4.6%	4.7%	-3 bps	7.0%	8.9%	-190 bps	11.6%	11.7%	-8 bps
OPM	-17.7%	-16.5%	-125 bps	-13.7%	-10.5%	-318 bps	-5.6%	-3.3%	-230 bps
Adj. EBITDA margin	-2.7%	-5.7%	298 bps	0.9%	-1.2%	202 bps	4.8%	3.8%	103 bps
Net margin	-15.5%	-14.0%	-155 bps	-12.4%	-8.3%	-409 bps	-5.0%	-1.7%	-328 bps

Source: Company data, CMBIS



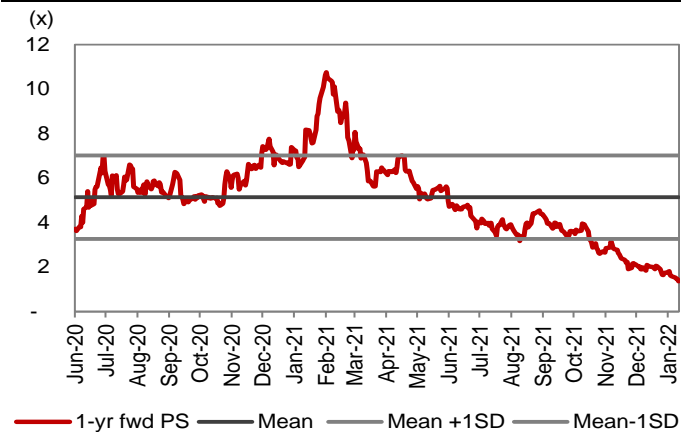
**Figure 25: Quarterly model**

RMB mn	4Q20	1Q21	2Q21	3Q21	4Q21E	1Q22E	2Q22E	3Q22E
Revenues	1,923	1,814	2,174	2,414	2,653	2,360	2,892	3,230
Cost of sales	(1,830)	(1,697)	(2,055)	(2,325)	(2,558)	(2,214)	(2,678)	(3,015)
Gross Profit	<b>93</b>	<b>117</b>	<b>118</b>	<b>88</b>	<b>95</b>	<b>146</b>	<b>214</b>	<b>214</b>
<i>Gross margin</i>	<i>4.8%</i>	<i>6.4%</i>	<i>5.5%</i>	<i>3.7%</i>	<i>3.6%</i>	<i>6.2%</i>	<i>7.4%</i>	<i>6.6%</i>
R&D	(181)	(265)	(232)	(269)	(312)	(321)	(353)	(319)
SG&A	(157)	(204)	(207)	(289)	(245)	(217)	(274)	(331)
Operating Income	<b>(245)</b>	<b>(352)</b>	<b>(320)</b>	<b>(469)</b>	<b>(462)</b>	<b>(392)</b>	<b>(414)</b>	<b>(436)</b>
<i>Operating margin</i>	<i>-12.8%</i>	<i>-19.4%</i>	<i>-14.7%</i>	<i>-19.4%</i>	<i>-17.4%</i>	<i>-16.6%</i>	<i>-14.3%</i>	<i>-13.5%</i>
Adj. EBITDA	<b>(18)</b>	<b>(49)</b>	<b>(55)</b>	<b>(141)</b>	<b>(71)</b>	<b>(27)</b>	<b>7</b>	<b>25</b>
<i>Adj. EBITDA margin</i>	<i>-0.9%</i>	<i>-2.7%</i>	<i>-2.5%</i>	<i>-5.8%</i>	<i>-2.7%</i>	<i>-1.1%</i>	<i>0.2%</i>	<i>0.8%</i>
Non-Operating Income	144	(27)	103	(33)	124	(33)	99	(25)
Profit Before Tax	(102)	(379)	(217)	(502)	(338)	(425)	(315)	(461)
Net Income to Shareholders	<b>(105)</b>	<b>(382)</b>	<b>(220)</b>	<b>(508)</b>	<b>(341)</b>	<b>(429)</b>	<b>(318)</b>	<b>(466)</b>
<i>Net margin</i>	<i>-5.5%</i>	<i>-21.1%</i>	<i>-10.1%</i>	<i>-21.0%</i>	<i>-12.9%</i>	<i>-18.2%</i>	<i>-11.0%</i>	<i>-14.4%</i>
EPS (RMB) per share	<b>(0.03)</b>	<b>(0.11)</b>	<b>(0.07)</b>	<b>(0.15)</b>	<b>(0.10)</b>	<b>(0.12)</b>	<b>(0.09)</b>	<b>(0.14)</b>
EPS (RMB) per ADS	<b>(0.48)</b>	<b>(1.72)</b>	<b>(0.99)</b>	<b>(2.22)</b>	<b>(1.49)</b>	<b>(1.87)</b>	<b>(1.39)</b>	<b>(2.03)</b>

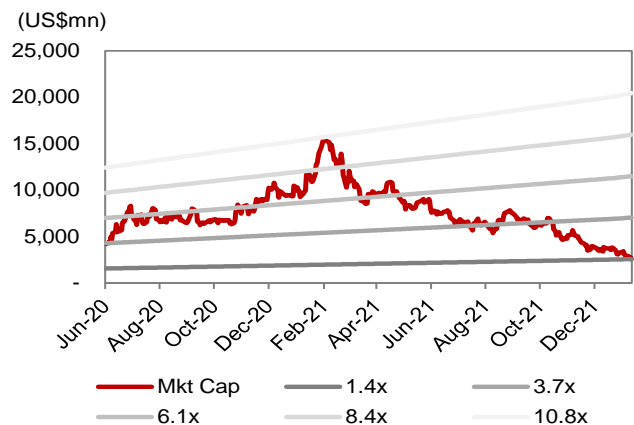
Source: Company data, CMBIS

**Valuation**

We maintain BUY on Kingsoft Cloud with new target price of US\$16.74 (prior US\$35.33), based on lowered 2x (prior 4x) FY22E P/S to factor in market share loss given large exposure to internet customers. Kingsoft Cloud is trading at 1.3x FY22E P/S, compared to peers UCloud of 2.1x.

**Figure 26: KC US 12M forward P/S chart**

Source: Bloomberg, CMBIS

**Figure 27: KC US 12M forward P/S band**

Source: Bloomberg, CMBIS

## Financial Summary – GDS (GDS US/ 9698 HK)

Income statement						Cash flow summary					
YE 31 Dec (RMB mn)	FY19A	FY20A	FY21E	FY22E	FY23E	YE 31 Dec (RMB mn)	FY19A	FY20A	FY21E	FY22E	FY23E
<b>Revenues</b>						<b>Net Income</b>	<b>(442)</b>	<b>(669)</b>	<b>(1,151)</b>	<b>(1,168)</b>	<b>(1,398)</b>
Service Revenue	4,095	5,717	7,765	9,954	12,060	Depreciation & Amortization	1,142	1,638	2,588	3,282	4,094
Equipment Revenue	28	22	8	13	12	Net change in WC	(653)	(1,023)	(834)	700	498
<b>Total Revenue</b>	<b>4,122</b>	<b>5,739</b>	<b>7,773</b>	<b>9,967</b>	<b>12,072</b>	Others	247	375	465	-	-
Cost of sales	(3,080)	(4,189)	(6,031)	(7,714)	(9,453)	<b>Net cash from operating act.</b>	<b>293</b>	<b>321</b>	<b>1,069</b>	<b>2,815</b>	<b>3,194</b>
<b>Gross Profit</b>	<b>1,043</b>	<b>1,550</b>	<b>1,742</b>	<b>2,253</b>	<b>2,619</b>	Capital Expenditures	(4,553)	(8,021)	(13,992)	(5,831)	(5,432)
R&D Expenditures	(22)	(40)	(40)	(64)	(71)	Acquisition of Business	(579)	(1,357)	(1,576)	(648)	(604)
Sales/Marketing/Ad Exp.	(130)	(135)	(139)	(160)	(220)	Other Investing Activities	-	-	(947)	(3,485)	(3,136)
G&A Expenses	(411)	(703)	(1,009)	(1,189)	(1,327)	<b>Net cash from investing act.</b>	<b>(5,131)</b>	<b>(9,378)</b>	<b>(16,515)</b>	<b>(9,964)</b>	<b>(9,172)</b>
<b>Operating Income</b>	<b>480</b>	<b>673</b>	<b>555</b>	<b>840</b>	<b>1,001</b>	Equity raised	4,934	12,724	-	-	-
<b>Adj. EBITDA</b>	<b>1,824</b>	<b>2,681</b>	<b>3,656</b>	<b>4,500</b>	<b>5,348</b>	Change of debts	3,730	790	4,783	6,105	6,757
Interest Expense	(969)	(1,287)	(1,554)	(1,833)	(2,179)	Dividend paid	(25)	-	-	-	-
Other non-oper. income	62	66	56	43	43	Others	(277)	6,630	(1,806)	751	(12)
<b>Profit Before Income Taxes</b>	<b>(426)</b>	<b>(548)</b>	<b>(943)</b>	<b>(950)</b>	<b>(1,135)</b>	<b>Net cash from financing act.</b>	<b>8,362</b>	<b>20,144</b>	<b>2,977</b>	<b>6,856</b>	<b>6,745</b>
Income Tax Expense	(16)	(121)	(208)	(217)	(263)	<b>Net change in cash</b>	<b>3,524</b>	<b>11,087</b>	<b>(12,469)</b>	<b>(292)</b>	<b>766</b>
<b>Net Profit (loss)</b>	<b>(442)</b>	<b>(669)</b>	<b>(1,151)</b>	<b>(1,168)</b>	<b>(1,398)</b>	Cash at beg. of the year	2,162	5,811	16,259	3,800	3,508
Non-controlling interests	(58)	(69)	(122)	(146)	(144)	Ex. difference and others	125	(638)	10	-	-
<b>Net Profit (loss) to shr holders</b>	<b>(500)</b>	<b>(738)</b>	<b>(1,273)</b>	<b>(1,314)</b>	<b>(1,541)</b>	<b>Cash at the end of the year</b>	<b>5,811</b>	<b>16,259</b>	<b>3,800</b>	<b>3,508</b>	<b>4,274</b>

Balance sheet						Key ratios					
YE 31 Dec (RMB mn)	FY19A	FY20A	FY21E	FY22E	FY23E	YE 31 Dec	FY19A	FY20A	FY21E	FY22E	FY23E
<b>Non-current assets</b>	<b>24,408</b>	<b>38,940</b>	<b>56,604</b>	<b>63,285</b>	<b>68,363</b>	<b>Key operating ratios</b>					
PPE - Net	19,185	29,596	44,587	50,620	55,095	Total area in service ('000 sqm)	230	334	501	616	776
Other Intangible Assets	2,300	3,382	4,801	5,448	6,052	Avg. UTR	69%	72%	66%	65%	64%
Other noncurrent assets	2,923	5,962	7,216	7,216	7,216	Avg. MSR (RMB/ sqm/ Month)	2,532	2,333	2,253	2,186	2,148
<b>Current assets</b>	<b>7,085</b>	<b>18,319</b>	<b>6,961</b>	<b>7,351</b>	<b>8,745</b>	<b>Growth (YoY)</b>					
Cash and Equivalents	5,811	16,259	3,800	3,508	4,274	Revenue	47.6%	39.2%	35.4%	28.2%	21.1%
A/R - Trade	880	1,480	2,094	2,652	3,178	Gross profit	67.5%	48.7%	12.4%	29.3%	16.2%
Other current assets	394	579	1,067	1,191	1,292	EBITDA	74.3%	47.0%	36.4%	23.1%	18.8%
<b>Current liabilities</b>	<b>4,000</b>	<b>7,644</b>	<b>9,153</b>	<b>11,357</b>	<b>13,393</b>	Net profit	n.a.	n.a.	n.a.	n.a.	n.a.
Borrowings	1,138	2,153	2,358	3,180	4,090	<b>Margins</b>					
AP - Trade	1,676	3,657	4,325	5,186	5,938	Gross margin	25.3%	27.0%	22.4%	22.6%	21.7%
Accrued Expenses	818	1,493	1,923	2,409	2,782	Operating margin	11.6%	11.7%	7.1%	8.4%	8.3%
Other non-current liab.	368	341	547	583	582	EBITDA margin	44.2%	46.7%	47.0%	45.2%	44.3%
<b>Non-current liabilities</b>	<b>16,137</b>	<b>22,947</b>	<b>28,541</b>	<b>34,575</b>	<b>40,409</b>	<b>Balance sheet ratio</b>					
Borrowings	8,028	10,567	15,145	20,428	26,275	Net debt / equity ratio (%)	0.5	net cash	0.6	0.9	1.3
Convertible bonds	2,050	1,928	1,926	1,926	1,926	Current ratio	1.8	2.4	0.8	0.6	0.7
Others	6,059	10,452	11,470	12,221	12,209	<b>Returns (%)</b>					
<b>Total mezzanine equity</b>	<b>1,062</b>	<b>1,102</b>	<b>1,311</b>	<b>1,311</b>	<b>1,311</b>	ROE	n.a.	n.a.	n.a.	n.a.	n.a.
Share capital	0	1	1	1	1	ROA	n.a.	n.a.	n.a.	n.a.	n.a.
Capital surplus	12,403	28,729	28,922	28,922	28,922	<b>Per share</b>					
Retained earnings	-2,057	-2,724	-3,868	-5,035	-6,433	EPS (RMB)	-0.45	-0.59	-0.89	-0.92	-1.08
Other reserves	-53	-440	-529	-529	-529	BVPS (RMB)	9.3	20.4	19.6	18.7	17.5
<b>Total equity</b>	<b>10,294</b>	<b>25,566</b>	<b>24,560</b>	<b>23,392</b>	<b>21,995</b>						

Source: Company data, CMBIS estimates

## Financial Summary – Kingsoft Cloud (KC US)

### Income statement

YE 31 Dec (RMB mn)	FY19A	FY20A	FY21E	FY22E	FY23E
<b>Revenue</b>	<b>3,956</b>	<b>6,577</b>	<b>9,054</b>	<b>11,984</b>	<b>16,083</b>
Cost of sales	(3,949)	(6,220)	(8,636)	(11,151)	(14,219)
<b>Gross Profit</b>	<b>8</b>	<b>357</b>	<b>418</b>	<b>834</b>	<b>1,864</b>
S&M	(317)	(409)	(484)	(630)	(681)
G&A	(239)	(380)	(461)	(497)	(594)
R&D	(595)	(775)	(1,078)	(1,347)	(1,487)
<b>Operating Profit/(Loss)</b>	<b>(1,144)</b>	<b>(1,207)</b>	<b>(1,604)</b>	<b>(1,640)</b>	<b>(899)</b>
<b>Adj. EBITDA</b>	<b>(418)</b>	<b>(119)</b>	<b>(242)</b>	<b>104</b>	<b>770</b>
Interest income	17	12	10	21	24
Interest expense	-	-	(2)	(2)	(4)
Other non-ops	778	958	1,270	1,203	777
<b>Profit Before Tax</b>	<b>(348)</b>	<b>(237)</b>	<b>(326)</b>	<b>(418)</b>	<b>(101)</b>
Income tax	(9)	(15)	(15)	(15)	(8)
<b>Profit After Tax</b>	<b>(1,111)</b>	<b>(962)</b>	<b>(1,403)</b>	<b>(1,482)</b>	<b>(806)</b>
Non-controlling Interest	-	(0)	(1)	(0)	(0)
Others	(50)	(20)	-	-	-
<b>Net profit</b>	<b>(1,161)</b>	<b>(982)</b>	<b>(1,405)</b>	<b>(1,483)</b>	<b>(806)</b>

### Cash flow summary

YE 31 Dec (RMB mn)	FY19A	FY20A	FY21E	FY22E	FY23E
<b>Net Income</b>	<b>(1,111)</b>	<b>(962)</b>	<b>(1,403)</b>	<b>(1,482)</b>	<b>(806)</b>
Depreciation And Amortization	605	758	920	1,145	1,347
Net Change In Working Capital	(113)	(300)	305	(316)	(291)
Others	181	213	0	0	0
<b>Net cash from operating act.</b>	<b>(439)</b>	<b>(290)</b>	<b>(179)</b>	<b>(653)</b>	<b>250</b>
Capital Expenditures	(1,000)	(1,560)	(1,217)	(1,433)	(1,040)
Short-term investments	(1,112)	(5,608)	0	0	0
Other Investing Activities	2,995	2,854	(5)	(5)	(5)
<b>Net cash from investing act.</b>	<b>883</b>	<b>(4,314)</b>	<b>(1,222)</b>	<b>(1,438)</b>	<b>(1,045)</b>
Equity raised	349	5,934	0	0	0
Change of debts	(81)	178	176	1,522	626
Dividend paid	0	0	0	0	0
Others	(204)	11	0	0	0
<b>Net cash from financing act.</b>	<b>65</b>	<b>6,124</b>	<b>176</b>	<b>1,522</b>	<b>626</b>
<b>Net change in cash</b>	<b>509</b>	<b>1,520</b>	<b>(1,225)</b>	<b>(569)</b>	<b>(169)</b>
Cash at the beginning of the year	1,507	2,023	3,425	2,200	1,631
Exchange difference	8	(118)	0	0	0
Cash at the end of the year	2,023	3,425	2,200	1,631	1,462

### Balance sheet

YE 31 Dec (RMB mn)	FY19A	FY20A	FY21E	FY22E	FY23E
<b>Non-current assets</b>	<b>1,882</b>	<b>2,384</b>	<b>2,687</b>	<b>2,980</b>	<b>2,679</b>
PPE, net	1,721	1,957	2,262	2,559	2,263
Intangible assets	7	17	14	10	4
Others	154	411	411	411	411
<b>Current assets</b>	<b>4,150</b>	<b>9,545</b>	<b>8,699</b>	<b>9,463</b>	<b>10,869</b>
Cash	2,023	3,425	2,200	1,631	1,462
Accounts Receivable	1,347	2,335	2,700	3,742	4,909
Others	779	3,785	3,799	4,091	4,499
<b>Current liabilities</b>	<b>2,420</b>	<b>3,466</b>	<b>4,114</b>	<b>6,045</b>	<b>7,705</b>
Borrowings	100	74	74	74	74
Accounts Payable	1,255	2,057	2,341	2,996	3,837
Accrued Expenses	949	845	1,246	1,609	2,051
Others	116	489	453	1,366	1,742
<b>Non-current liabilities</b>	<b>75</b>	<b>224</b>	<b>435</b>	<b>1,044</b>	<b>1,294</b>
Borrowings	74	-	212	820	1,071
Amounts due to related parties	-	-	-	-	-
Others	0	224	224	224	224
Total mezzanine equity	7,735	-	-	-	-
Share capital	6	23	23	23	23
Capital surplus	92	14,150	14,150	14,150	14,150
Retained earnings	-	-	-	-	-
Others	608	-68	-67	-67	-67
<b>Total equity</b>	<b>-4,197</b>	<b>8,240</b>	<b>6,837</b>	<b>5,355</b>	<b>4,549</b>

### Key ratios

YE 31 Dec	FY19A	FY20A	FY21E	FY22E	FY23E
<b>Sales mix (%)</b>					
Public cloud services	87%	79%	71%	64%	60%
Enterprise cloud services	12%	21%	28%	36%	40%
Others	0%	1%	1%	0%	0%
<b>Total</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>
<b>Growth (YoY)</b>					
Revenue	78%	66%	38%	32%	34%
Gross profit	n.a.	4531%	17%	99%	124%
Adj. EBITDA	n.a.	n.a.	n.a.	n.a.	639%
Net profit	n.a.	n.a.	n.a.	n.a.	n.a.
<b>Margins</b>					
Gross margin	0%	5%	5%	7%	12%
Operating margin	-29%	-18%	-18%	-14%	-6%
Adj. EBITDA margin	-11%	-2%	-3%	1%	5%
<b>Balance sheet ratio</b>					
Net debt / equity ratio (%)	net cash	net cash	net cash	0.1	0.3
Current ratio	1.7	2.8	2.1	1.6	1.4
<b>Returns (%)</b>					
ROE	-33%	-12%	-21%	-28%	-18%
ROIC	-29%	-9%	-14%	-14%	-8%
<b>Per ADS</b>					
EPS (RMB)	-19.58	-6.14	-6.31	-6.66	-3.62
BVPS (RMB)	-70.8	51.5	30.7	24.0	20.4

Source: Company data, CMBIS estimates

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