

Zhihu (ZH US)

Vocational training & AIGC as LT driver

Despite macro challenges and epidemic resurgence, Zhihu delivered better-than-feared 4Q22 results, with strong membership & vocational training and narrowing loss. We expect Zhihu to see rev reacceleration from 1Q23E (forecasting +28% YoY), backed by: 1) resilient membership; 2) strong vocational training to continue (forecasting +140% YoY); and 3) mild ads recovery with China's reopening. We turn more bullish on vocational training potential, with enriched products matrix and course offerings. We see high visibility for Zhihu to improve its margin and achieve a quarterly breakeven in FY24E even with AIGC investment. We lifted its rev by 5%-8% in FY23-24E while FY24E bottom line barely changed, with TP at US\$2.3.

- **4Q22 all-around beat.** 4Q22 rev +9% YoY, 4%/6% above consensus/our estimates. By segment, CCS/Ads -19%/-27% YoY (3%/4% above our estimate). Paid membership +93% YoY, 9% above our estimate, attributable to rising paying users backed by community ecosystem enhancement. Non-GAAP net loss sequentially narrowed to RMB134mn, ahead of consensus and our estimate, thanks to savings in COGS and lower G&A expenses. GPM recorded at 56.4%, 6ppts above consensus.
- **Reacceleration in sight with resilient membership and mild ads recovery.** With enriched content and higher engagement of both creators & users, we are confident on its membership momentum (forecasting +54% in FY23E). Zhihu will launch its app of Yanyan <盐言故事>, to enhance its user experience. For ads & CCS, macro headwinds may linger in 1Q23E (forecasting rev -15% YoY in 1Q23E), and we expect rising ads demand from 2Q23E, especially from ecommerce & FMCG verticals. We expect adj. NPM to improve 13ppts YoY in FY23E thanks to higher GPM and disciplined S&M.
- **Vocational training and AIGC initiatives to boost LT momentum.** Vocational training rev surged 281% YoY in 4Q22. By leveraging its "knowledge-inspiring" community, we expect vocational training biz +140%/81% in 1Q23E/FY23E, with enriched products matrix and diversified course offerings. As a Q&A-oriented knowledge community, Zhihu excelled itself with unique value proposition and trustworthy PUGC, thus building data & content reserve for its AIGC initiatives. We expect its AIGC exploration would bring further upside in ecosystem enhancement and monetization.
- **Maintain BUY.** To factor in stronger vocational training and membership, we raised its topline by 5%-8% in FY23-24E, but adjusted its margin by -5~0ppts, with TP unchanged at US\$2.3 (implying 2.1x FY23E P/S).

Earnings Summary

(YE 31 Dec)	FY21A	FY22A	FY23E	FY24E	FY25E
Revenue (RMB mn)	2,927	3,605	4,608	5,674	6,645
YoY growth (%)	116.5	23.1	27.8	23.1	17.1
Adj. net income (RMB mn)	(735)	(1,196)	(942)	(129)	222
Adj. EPS (RMB)	(1.29)	(1.95)	(1.54)	(0.21)	0.36
YoY growth (%)	NA	NA	NA	NA	NA
Consensus EPS (RMB)	NA	NA	(1.4)	(0.6)	1.3
P/E (x)	NA	NA	NA	NA	24.5
P/S (x)	1.7	1.5	1.2	1.0	0.8
Net gearing (%)	Net Cash	Net Cash	Net Cash	Net Cash	Net Cash

Source: Company data, Bloomberg, CMBIGM estimates

BUY (Maintain)

Target Price	US\$2.3
(Previous TP	US\$2.3)
Up/Downside	+85.5%
Current Price	US\$1.2

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Stock Data

Mkt Cap (US\$ mn)	761
Avg 3 mths t/o (US\$ mn)	7.92
52w High/Low (US\$)	3.33/ 0.89
Total Issued Shares (mn)	602

Source: Bloomberg

Shareholding Structure

Cosmic Blue Invest	1.65%
Goldman Sachs	1.26%
Bank of America	1.05%

Source: Bloomberg

Share Performance

	Absolute	Relative
1-mth	-23.7%	-26.1%
3-mth	-22.2%	-29.8%
6-mth	5.3%	-0.4%

Source: Bloomberg

12-mth Price Performance



Source: Bloomberg

Auditor: Ernst & Young

4Q22 all-around beat

4Q22 rev +9.3% YoY, 4%/6% above consensus/our estimates. By segment, CCS/Ads -19%/-27% YoY (3%/4% above our estimate), due to scaling back of marketing budget amid epidemic impact and challenging macro. On the flip side, vocational training rev surged 281% YoY, with more diversified course offerings. Paid membership grew 96% YoY, driven by rising paying users attracted by new content and better algorithm. Non-GAAP net loss sequentially narrowed to RMB134mn, better than consensus of RMB243mn. We are impressed by its better-than-feared GPM (at 56.4%, 6ppts above consensus). MAU reached 100.7mn, +4% QoQ (-2.5% YoY), as Zhihu is cleaning up low-quality content to enhance user experience.

Figure 1: 4Q22 financial review

RMB mn, Dec-YE	1Q21	2Q21	3Q21	4Q21	1Q22	2Q22	3Q22	4Q22	QoQ	YoY	Consensus	Diff %	CMBI	Diff %
Revenue	478	638	824	1,019	743	836	912	1,114	22.2%	9.3%	1,076	4%	1,049	6%
Operating Profit	(342)	(351)	(322)	(375)	(648)	(461)	(279)	(216)	NA	NA	(327)	NA	(341)	NA
Net profit	(495)	(321)	(270)	(383)	(614)	(487)	(300)	(180)	NA	NA	(305)	NA	(355)	NA
Adj. net profit	(194)	(200)	(112)	(241)	(367)	(444)	(251)	(134)	NA	NA	(243)	NA	(262)	NA
Adj. EPS (RMB)	(1.35)	(0.34)	(0.19)	(0.41)	(0.61)	(0.72)	(0.41)	(0.22)	NA	NA	(0.47)	NA	(0.43)	NA
Margin (%)														
Gross margin	57.0%	59.0%	51.6%	47.1%	45.1%	47.8%	48.7%	56.4%			50.6%		50.3%	
Operating margin	-71.6%	-54.9%	-39.2%	-36.8%	-87.2%	-55.1%	-30.6%	-19.4%			-30.4%		-32.5%	
Adj. net margin	-40.5%	-31.4%	-13.6%	-23.6%	-49.4%	-53.1%	-27.5%	-12.0%			-22.6%		-25.0%	
Growth (%)														
Revenue (YoY)	154.2%	144.2%	115.1%	96.1%	55.4%	31.0%	10.7%	9.3%			5.6%		2.9%	
Revenue (QoQ)	-8.0%	33.5%	29.0%	23.8%	-27.1%	12.5%	9.1%	22.2%			18.1%		15.1%	
Operating Profit	NA	NA	NA	NA	NA	NA	NA	NA			NA		NA	
Adj. net profit	NA	NA	NA	NA	NA	NA	NA	NA			NA		NA	

Source: Company data, Bloomberg, CMBIGM estimates

Figure 2: 4Q22 revenue breakdown

RMB mn, Dec-YE	1Q21	2Q21	3Q21	4Q21	1Q22	2Q22	3Q22	4Q22	QoQ	YoY
Total revenue	478	638	824	1,019	743	836	912	1,114	22%	9%
Content-commerce solutions	121	207	278	367	227	240	265	298	12%	-19%
Advertising	214	248	321	378	217	238	197	275	40%	-27%
Paid membership	127	155	178	209	222	271	335	403	20%	93%
Vocational Training	3	7	14	22	40	46	78	85	8%	281%
Others	14	21	46	43	38	41	36	54	50%	26%

Source: Company data

Strong vocational training & membership to boost FY23E reacceleration

Vocational training would be Zhihu's LT driver. By leveraging its "knowledge-inspiring" community, Zhihu's vocational training biz climbed up quickly, and we forecast 1Q23E training rev +140% YoY (10% of total rev). Mgmt guided >20% rev contribution for training biz in the long run. Zhihu will enhance its content with focus on education & employment improvement. We expect richer content offerings and products matrix to boost its strong momentum ahead.

With enriched content and higher engagement of both creators & users, we are confident in its membership momentum (forecasting this segment +54% in FY23E). Zhihu will launch its app of *Yanyan* <盐言故事>, to enhance its user experience.

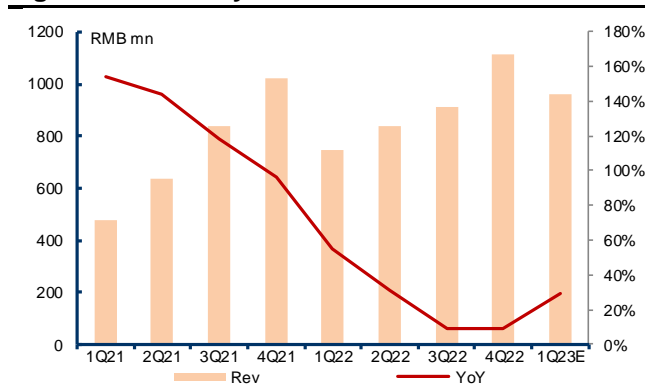
Mild ads recovery ahead

1Q23E ads recovery pace may lag behind macro recovery and ecommerce rebound, but on a 12-month horizon, ads & CCS should benefit from China's reopening, in our view. By ads verticals, IT/3C kept resilient, while ecommerce, beauties and FMCG might see recovery from 2Q23E (especially in 618). We forecast ads & CCS rev to decline 15% YoY in 1Q23E.

Margin improvement to continue, despite AIGC investment

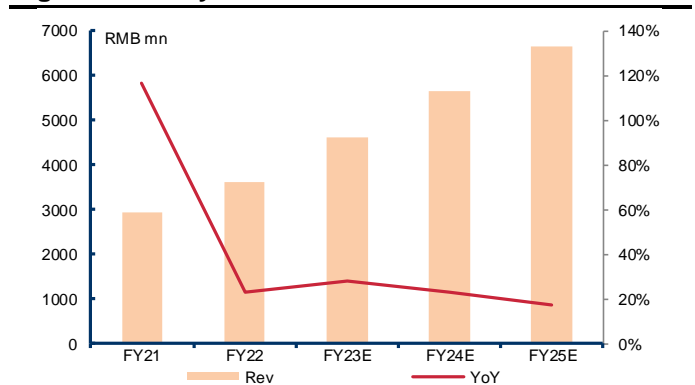
We expect adj. NPM to improve 13ppts YoY in FY23E thanks to higher GPM (mainly on efficiency improvement in fixed costs and higher rev mix from vocational training) and disciplined S&M. Zhihu will strategically invest in AIGC initiatives, but R&D expenses would be manageable. We forecast Zhihu to achieve a quarterly breakeven in FY24E.

Figure 3: Quarterly rev estimates

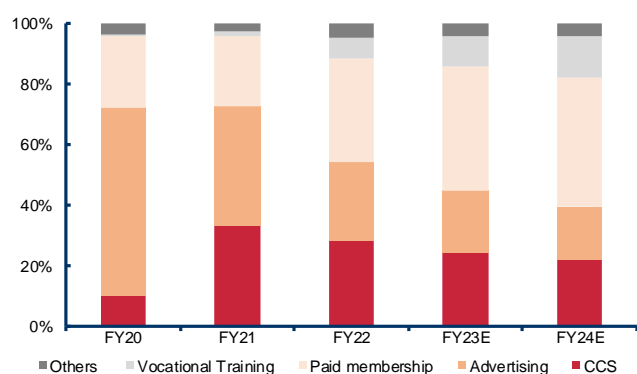


Source: Company data, CMBIGM estimates

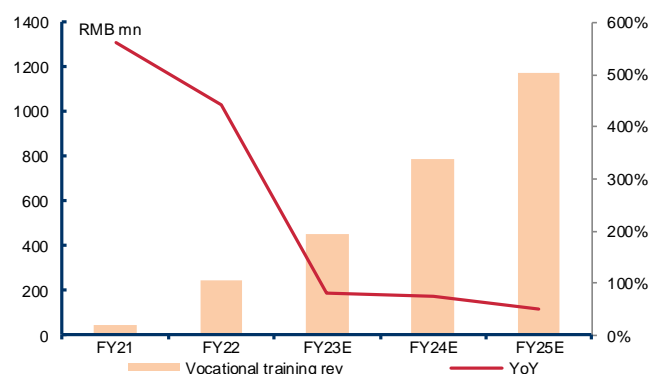
Figure 4: Yearly rev estimates



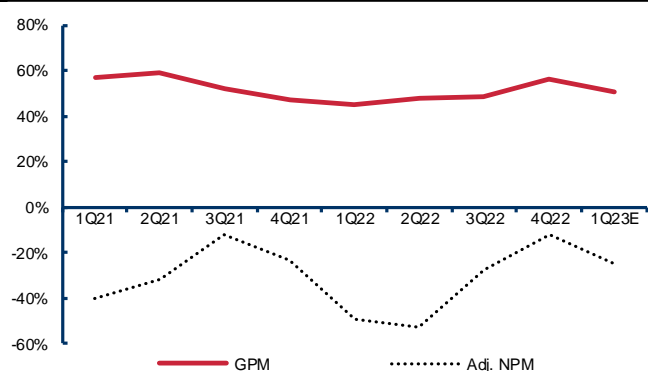
Source: Company data, CMBIGM estimates

Figure 5: Rev mix change

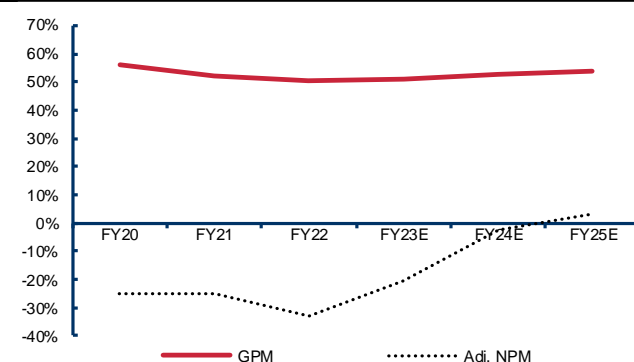
Source: Company data, CMBIGM estimates

Figure 6: Vocational training rev estimates

Source: Company data, CMBIGM estimates

Figure 7: Quarterly margin estimates

Source: Company data, CMBIGM estimates

Figure 8: Yearly margin estimates

Source: Company data, CMBIGM estimates

Maintain BUY with TP at US\$2.3

To factor in stronger membership and vocational training, we raised its topline by 5%-8% in FY23-24E, but adjusted its margin by -4.7/+0.1ppts in FY23/24E to reflect its AIGC investment, with DCF-based TP unchanged at **US\$2.3** (implying 2.1x FY23E P/S).

Figure 9: CMBIGM estimates vs consensus

RMB mn, Dec-YE	CMBIGM			Consensus			Diff (%)		
	FY23E	FY24E	FY25E	FY23E	FY24E	FY25E	FY23E	FY24E	FY25E
Revenue	4,608	5,674	6,645	4,738	5,963	6,845	-2.7%	-4.8%	-2.9%
Gross profit	2,347	2,999	3,587	2,429	3,209	3,959	-3.4%	-6.5%	-9.4%
Operating profit	(1,267)	(455)	(110)	(1,044)	(453)	436	NA	NA	NA
Adj. net profit	(942)	(129)	222	(660)	(17)	926	NA	NA	NA
EPS (RMB)	(1.54)	(0.21)	0.36	(1.40)	(0.62)	1.30	NA	NA	NA
Gross margin	50.9%	52.8%	54.0%	51.3%	53.8%	57.8%	-0.3ppts	-1.0ppts	-3.8ppts
Operating margin	-27.5%	-8.0%	-1.7%	-22.0%	-7.6%	6.4%	-5.5ppts	-0.4ppts	-8.0ppts
Net margin	-20.4%	-2.3%	3.3%	-13.9%	-0.3%	13.5%	-6.5ppts	-2.0ppts	-10.2ppts

Source: Company data, Bloomberg, CMBIGM estimates

Figure 10: Earnings revision

RMB mn, Dec-YE	New			Old			Diff (%)		
	FY23E	FY24E	FY25E	FY23E	FY24E	FY25E	FY23E	FY24E	FY25E
Revenue	4,608	5,674	6,645	4,369	5,276	NA	5.5%	7.6%	NA
Gross profit	2,347	2,999	3,587	2,206	2,752	NA	6.4%	9.0%	NA
Operating profit	(1,267)	(455)	(110)	(1,132)	(695)	NA	NA	NA	NA
Adj. net profit	(942)	(129)	222	(687)	(124)	NA	NA	NA	NA
EPS (RMB)	(1.54)	(0.21)	0.36	(1.12)	(0.20)	NA	NA	NA	NA
Gross margin	50.9%	52.8%	54.0%	50.5%	52.2%	NA	+0.5ppts	+0.7ppts	NA
Operating margin	-27.5%	-8.0%	-1.7%	-25.9%	-13.2%	NA	-1.6ppts	+5.2ppts	NA
Net margin	-20.4%	-2.3%	3.3%	-15.7%	-2.4%	NA	-4.7ppts	+0.1ppts	NA

Source: Company data, CMBIGM estimates

Figure 11: DCF Valuation

DCF valuation (RMB mn)										
	2023E	2024E	2025E	2026E	2027E	2028E	2029E	2030E	2031E	2032E
EBIT	(1,022)	(207)	144	328	412	535	642	758	871	963
Tax	0	0	0	(22)	(34)	(80)	(96)	(114)	(131)	(144)
D&A	26	30	31	38	45	38	45	51	56	61
Working capital	50	222	446	51	133	140	147	154	162	170
CAPEX	(32)	(40)	(47)	(52)	(57)	(63)	(69)	(76)	(84)	(92)
FCF	(978)	5	575	342	498	570	668	773	875	957
FCF Growth		NA	NA	-40%	45%	14%	17%	16%	13%	9%
Terminal Value										10,562
PV (FCF+ Terminal Value)	(978)	5	456	242	313	319	332	342	345	4,044

Assumptions	
WACC	12.3%
Tax rate	15.0%
Risk free rate	3.2%
Beta	1.10
Market risk return	11.5%
Cost of equity	12.3%
WACC	12.3%
Terminal growth rate	3.0%

Equity Value	
PV	5,419
minus: Net cash	4,348
minus: Minority Interest	0
Equity Value	9,767
Shares (mn)	612
Target Price (US\$) based on DCF	2.3

		WACC				
Growth		10.3%	11.3%	12.3%	13.3%	14.3%
		2.6	2.4	2.2	2.0	1.9
	1.5%	2.6	2.4	2.2	2.0	1.9
	2.0%	2.7	2.4	2.2	2.1	1.9
	2.5%	2.7	2.5	2.3	2.1	2.0
	3.0%	2.8	2.5	2.3	2.1	2.0
	3.5%	2.9	2.6	2.4	2.2	2.0
	4.0%	3.0	2.7	2.4	2.2	2.1
	4.5%	3.2	2.8	2.5	2.3	2.1

Source: Company data, CMBIGM estimates

As a crosscheck, we selected 2 online community players, 6 VAS peers and 2 ads peers for comparison. The industry multiple is **2.5x** FY23E P/S, 19% above our DCF-based multiple.

Zhihu is now trading at 1.2x FY23E P/S with attractive valuation (largely below industry average). We think our TP of 2.1x is not demanding for Zhihu, since: 1) it excelled itself with high-quality “knowledge-inspiring” content; and 2) it would deliver higher rev CAGR (20% in FY23-25E, vs. 12% for industrial average). Its potential ads recovery, rising vocational training, and AIGC initiatives would further help it re-rate.

Figure 12: Valuation comps

Company	Ticker	Mkt cap (USD mn)	Currency	Price	CMBI Rating	CMBI TP	PE			PS			FY23-25 EPS CAGR
							FY23E	FY24E	FY25E	FY23E	FY24E	FY25E	
Zhihu	ZH US	793	USD	1.2	BUY	2.3	NA	NA	24.5	1.2	1.0	0.8	NA
Online Community													
Bilibili	BILI US	9,342	USD	23	BUY	30	NA	NA	52.2	2.5	2.1	1.9	NA
Kuaishou	1024 HK	31,238	HKD	57	BUY	94	NA	20.9	12.8	2.1	1.8	1.5	750%
Average							NA	20.9	32.5	2.3	2.0	1.7	NA
VAS													
China Literature	772 HK	5,219	HKD	40	NA	NA	23.6	20.5	18.2	4.3	3.9	3.6	12%
Tencent	700 HK	457,834	HKD	376	BUY	455	22.4	18.8	15.9	5.1	4.6	4.1	19%
JOYY	YY US	2,094	USD	30	BUY	46	14.1	10.9	8.9	0.8	0.8	0.7	25%
Huya	HUYA US	794	USD	3	BUY	7	NA	58.5	22.2	0.6	0.6	0.6	NA
Douyu	DOYU US	359	USD	1	NA	NA	NA	NA	NA	0.4	0.4	0.4	184%
TME	TME US	12,321	USD	7	BUY	11	15.8	14.4	12.5	2.9	2.7	2.5	11%
Mango	300413 CH	9,658	CNY	36	NA	NA	33.8	27.2	23.3	4.7	4.1	3.6	21%
iQIYI	IQ US	6,618	USD	7	BUY	9	21.5	14.1	11.2	1.4	1.3	1.2	38%
Average							21.9	17.6	16.0	2.5	2.3	2.1	44%
Ad													
Baidu	BIDU US	51,971	USD	149	BUY	196	16.2	13.8	12.3	2.6	2.4	2.2	35%
Weibo	WB US	4,135	USD	17	BUY	29	7.8	6.9	6.4	2.1	1.9	1.9	11%
Average							12.0	10.3	9.3	2.4	2.2	2.0	23%
Average							19.4	16.4	17.4	2.5	2.2	2.0	21%

Source: BBG, CMBIGM estimates

Financial Summary

Income statement

YE 31 Dec (RMB mn)	FY21A	FY22A	FY23E	FY24E	FY25E
Revenues	2,927	3,605	4,608	5,674	6,645
CCS	974	1,030	1,104	1,254	1,423
Advertising	1,161	926	965	985	1,003
Paid membership	669	1,231	1,894	2,427	2,813
Vocational Training	46	248	450	791	1,175
Others	78	169	194	217	230
COGS	(1,405)	(1,797)	(2,260)	(2,676)	(3,057)
Gross profit	1,522	1,808	2,347	2,999	3,587
S&M	(1,635)	(2,026)	(1,929)	(1,841)	(2,013)
R&D	(620)	(763)	(985)	(984)	(1,031)
G&A	(690)	(622)	(700)	(629)	(654)
Operating profit	(1,423)	(1,604)	(1,267)	(455)	(110)
Other income	97	40	80	78	78
Pre-tax Income	(1,325)	(1,564)	(1,187)	(377)	(32)
Income Tax	(2)	0	0	0	0
Net profit	(1,327)	(1,564)	(1,187)	(377)	(32)
Accretions	(171)	0	0	0	0
Net profit to shareholder	(1,498)	(1,564)	(1,187)	(377)	(32)
Adj. net profit	(735)	(1,196)	(942)	(129)	222

Cash flow summary

YE 31 Dec (RMB mn)	FY21A	FY22A	FY23E	FY24E	FY25E
Net income	(1,299)	(1,564)	(1,187)	(377)	(32)
D&A	21	19	26	30	31
Change in WC	291	44	50	222	446
Others	546	374	243	246	252
Operating CF	(440)	(1,128)	(868)	121	697
CAPEX	(7)	(25)	(32)	(40)	(47)
Others	(3,129)	3,445	800	0	0
Investing CF	(3,137)	3,420	768	(40)	(47)
Issuance of shares	0	0	0	0	0
IPO proceeds	4,853	0	0	0	0
Others	0	0	0	0	0
Financing CF	4,853	0	0	0	0
Net change in cash	1,276	2,292	(101)	81	651
Cash (beg of yr)	958	2,157	4,449	4,348	4,429
Fx effect	(100)	0	0	0	0
Cash (end of yr)	2,134	4,449	4,348	4,429	5,080

Balance sheet

YE 31 Dec (RMB mn)	FY21A	FY22A	FY23E	FY24E	FY25E
Non-current assets	471	336	78	87	102
PP&E	10	7	33	43	53
Intangible assets, net	68	80	19	18	23
Right-of-use assets	127	100	26	26	26
Others	266	149	0	0	0
Current assets	8,334	7,320	8,108	8,342	8,900
Cash, cash equivalents	2,157	4,526	4,348	4,429	5,080
Term deposits	2,816	948	1,093	1,093	1,093
Short-term investments	2,240	787	1,046	1,046	1,046
Other current asset	1,122	1,058	1,621	1,774	1,681
Current liabilities	1,898	1,825	2,385	2,759	3,113
AP and accruals	1,027	916	1,084	1,272	1,449
Salary welfare payables	314	284	435	438	468
Contract liabilities	240	356	679	870	1,009
Others	318	270	187	179	187
Non-current liabilities	169	137	0	0	0
Lease liabilities	82	43	0	0	0
Mezzanine equity and shareholders' equity	6,738	5,694	4,686	4,555	4,775

Key ratios

YE 31 Dec	FY21A	FY22A	FY23E	FY24E	FY25E
Sales mix (%)					
CCS	33.3	28.6	24.0	22.1	21.4
Advertising	39.7	25.7	20.9	17.4	15.1
Paid membership	22.8	34.1	41.1	42.8	42.3
Vocational Training	1.6	6.9	9.8	13.9	17.7
Others	2.7	4.7	4.2	3.8	3.5
Total	100.0	100.0	100.0	100.0	100.0
Growth rate (%)					
Revenue	116.5	23.1	27.8	23.1	17.1
Gross profit	100.9	18.8	29.8	27.7	19.6
EBIT	NA	NA	NA	NA	NA
Adj. net profit	NA	NA	NA	NA	NA
P&L ratios (%)					
Operating margin	(48.6)	(44.5)	(27.5)	(8.0)	(1.7)
Pre-tax margin	(45.3)	(43.4)	(25.8)	(6.7)	(0.5)
Adj. net margin	(25.1)	(33.2)	(20.4)	(2.3)	3.3
Effective tax rate	0.2	0.0	0.0	0.0	0.0
Returns (%)					
ROE	(10.9)	(21.0)	(20.1)	(2.8)	4.6
ROA	(8.3)	(15.6)	(11.5)	(1.5)	2.5
Per share					
EPS (RMB)	(1.3)	(2.0)	(1.5)	(0.2)	0.4
DPS (RMB)	0.0	0.0	0.0	0.0	0.0
BVPS (RMB)	43.2	47.9	54.4	62.3	62.3

Source: Company data, CMBIGM estimates

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