

# China Education Group (CEG) An expanding national private higher education service provider

- FY17 revenue and core net profit (excluding listing expenses) grew by 10.2% YoY and 15.0% YoY; the Group is in a net cash position of RMB 3.2bn with no debts
- The Group announced the acquisition of schools in Zhengzhou and Xi'an; including the students from these schools, total enrollment for the 2016/17 school year would have been over 100k the highest among all HK-listed PRC education players
- We expect total revenue to grow by 29.4% CAGR in FY17-20E; the addition of Zhengzhou and Xi'an schools would boost revenue growth to ~38% YoY in FY18E-19E; we also expect margins to improve from FY18E-20E
- Initiate with BUY; current TP implies 29.43x/21.61x 18E/19E P/E or 2.74x/2.43x 18E/19E P/B

**Strong FY17 results.** Revenue was up 10.2% YoY while gross profit and core net profit (excluding listing expenses) increased 22.6% YoY and 15.0% YoY. GPM rose from 53.0% in FY16 to 59.0% in FY17 and core NPM rose from 47.9% in FY16 to 50% in FY17. The Group repaid all its bank borrowings and was in a net cash position of RMB 3.2bn as of Dec 2017.

A leading player in China's private higher education sector. The Group also announced the acquisition of schools in Zhengzhou and Xi'an. Valuations of the Zhengzhou School and Xi'an School are RMB 1,068mn and RMB 930mn, representing 14.9x and 14.5x 18E P/E, based on the Group's estimate. Including the two acquired schools, total student enrollment would exceed 100k, the highest among all HK-listed PRC education players. The two newly acquired schools are specialized in the railway-related education, in line with China's "One Belt, One Road" initiative.

School locations, education quality and graduate employment track records enable higher tuitions. The Group's original portfolio schools in Guangdong and Jiangxi have a higher tuition than peers due to better school location, teaching quality, and graduate employment track records. In the 2017/18 school year, its portfolio schools were able to raise the tuition for certain programs.

**Growth supported by acquisition and increasing fees.** We believe addition of the two acquired schools, expanding student enrollment, and rising tuition would result in revenue and net profit expanding at 29.4% and 34.5% CAGRs in 2017-20E. Revenue growth in FY18E-19E would be ~38% YoY due to the consolidation effect. We also expect GPM and NPM (to owners of the Company) to improve to 57.7% and 50.7% in FY20E from 56.6% and 47.9% in FY18E.

**Initiate with BUY; TP at HK\$ 14.11.** We believe the Group's current operation scale, solid expansion plan, and future growth prospect support a premium valuation. We initiate with **BUY**. Based on our DCF model, we set TP at HK\$ 14.11, which represents 29.43x/21.61x 18E/19E P/E or 2.74x/2.43x 18E/19E P/B. Currently, the average 18/E P/E of the higher education sector in HK market is 19.51x.

**Risk factors**: 1) Growth risk; 2) Cost risk; 3) Acquisition/business cooperation risk; 4) Education quality and student dropout risk; 5) Expansion bottleneck risk; 6) Regulatory risk; 7) Reputation risk; 8) EPS dilution effect due to IPO.

#### **Results and Valuation**

FY ended Dec 31	FY16A	FY17A	FY18E	FY19E	FY20E
Revenue (RMB mn)	861	949	1,315	1,816	2,058
Chg (YoY %)	1.81	10.20	38.55	38.12	13.30
Net Profit – to owners of the Company (RMB mn)	411	429	630	857	1,043
Chg (%,YoY)	18.35	4.26	46.79	36.19	21.68
Basic EPS (RMB cent)	N/A	28.16	31.16	42.44	51.64
Change (YoY %)	N/A	N/A	10.66	36.19	21.68
P/E (x)	N/A	29.09	26.29	19.30	15.86
BVPS (RMB cent)	N/A	279.13	335.06	377.50	429.14
P/B (x)	N/A	2.93	2.45	2.17	1.91
Dividend (RMB cent)	N/A	0.00	9.35	12.73	15.49
Dividend yield	N/A	0.00	1.14	1.55	1.89
ROAA (%)	11.29	8.14	8.30	9.44	10.09
ROAE (%)	17.72	10.51	10.15	11.91	12.80

Source(s): Bloomberg, The Group, ABCI Securities estimates

Company Report Initiation Mar 20, 2018 Rating: BUY TP: HK\$ 14.11

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Share price (HK\$)	10.16
52WK H/L (HK\$)	10.34/6.24
Est. share price return	38.84%
Est. dividend yield	1.14%
Est. total returns	39.98%
Previous rating/TP	N/A / N/A

Source(s): Bloomberg, ABCI Securities estimates

#### Key data

ney uata	
Issued shares (mn)	2,020.20
Mkt cap (HK\$ mn)	20,525.25
ADT since IPO (HK\$mn)	44.06
Shareholding (%)	
Yu Guo	37.125
Xie Ketao	37.125
Cornerstone investors	11.13
Other public investors	14.62

Source(s): Bloomberg, the Group

#### Margin and growth projections (%)

	FY18E	FY19E	FY20E
GPM	56.6	57.5	57.7
Pretax margin	48.8	48.4	52.0
NPM (owners of the Company)	47.9	47.2	50.7

Source(s): ABCI Securities estimates

#### Price performance (%)

	<u>Absolute</u>	Relative*
1-mth	20.38	17.88
3-mth	58.01	49.74
6-mth	N/A	N/A

\* Relative to HSI Source(s):Bloomberg

#### Price performance since IPO



Source(s):Bloomberg, ABCI Securities

<sup>\*</sup> All pricing and market data are as of end of Mar 20, 2018



#### **FY17** results review

Total revenue grew by 10.2% YoY, while gross profit and net profit expanded by 22.6% YoY and 4.3% YoY. Excluding the listing expenses, core net profit increased by 15.0% YoY. The growth in revenue mainly comes from the increase of student enrollment by 18.76% YoY, as the Group acquired Baiyun Technician College in Aug 2017.

The Group's margin improved in FY17. GPM increased from 53.0% in FY16 to 59.0% in FY17. NPM (to owners of the company) slightly declined to 45.2% from 47.8% in FY16. Excluding the listing expenses, core NPM was 50.0% in FY17, higher than 47.9% in FY16. The margin improved on higher revenue growth, low tax rate, and effective cost control measures. Specifically, the increase in teaching staff costs was offset by decline in educational maintenance and operational costs.

The Group currently has a net cash position of RMB 3.24bn due to the IPO in Dec 2017. The Group has no leverage as all debt has been repaid. Short-term deferred revenue and deferred tuition revenue increased by 22% YoY, signaling solid growth to come in 2018.

The Group was able to increase its tuition in certain programs. E.g., tuition for bachelor's program at Jiangxi University of Technology increased to RMB 15k-20k from 14k-18k and that of Guangdong Baiyun University increased to 19k-28k from 19k-26k.

Total student enrollment grew 1.3% YoY for the 2017/18 school year. Individual schools, however, showed limited growth in student enrollment. The student enrollment for Jiangxi University of Technology and Guangdong Baiyun University grew by 1.1% YoY and 2.6% YoY, but that of Baiyun Technician College declined by 0.8% YoY.



# **History & milestones**

The following table shows the brief history and milestones of the Group from 1999 to 2017.

<b>Exhibit</b>	1: Histo	ory and milestones of the Group
<u>Year</u>	<u>Eve</u>	<u>nt</u>
1999	>	Jiangxi University of Technology and Guangdong Baiyun University obtained approval from the MOE for their establishments
2003	>	Guangdong Baiyun University was first ranked No. 1 in terms of competitive strength among private universities and colleges in Guangdong province by the Guangdong Academy of Social Science
2005	>	Each of Jiangxi University of Technology and Guangdong Baiyun University obtained MOE approval to change their school education levels (辦學層次) from higher vocational college (高等職業學校) to undergraduate/junior college/higher vocational education (本科、專科、高等職業教育) and became one of the first few private universities in Jiangxi and Guangdong provinces
	>	Mr Yu, Mr Xie, Jiangxi University of Technology and Guangdong Baiyun University entered into a cooperation agreement, pursuant to which Mr Yu and Mr Xie agreed to exercise joint management
2007	>	and control of Jiangxi University of Technology and Guangdong Baiyun University Jiangxi University of Technology entered into an exclusive service agreement with each of Guangdong Baiyun University and Baiyun Technician College
2009	>	Jiangxi University of Technology was first ranked No. 1 in terms of overall competitive strength in the Private University and College Ranking of China
	>	The Group entered into the contractual arrangements for the purposes of the reorganization pursuant
2017		to which the Company acquired control of Jiangxi University of Technology and Guangdong Baiyun University
	>	The Group obtained control of Baiyun Technician College

Source(s): Prospectus, ABCI Securities

The Group underwent a series of changes in order to complete the reorganization process afterwards, which includes the incorporation of offshore Group companies, reorganization in relation to Jiangxi University of Technology and Guangdong Baiyun University, establishment of the Group's wholly-foreign owned enterprise - Huajiao Education Technology (Jiangxi) Company (or "WFOE"), and entry into contractual arrangements with respect to Jiangxi University of Technology and Guangdong Baiyun University. For the current flow of economic benefits of the Group, please refer to Appendix II.

On July 10, 2017, the Group established University of Science and Technology as a corporation in the State of California, the U.S. On Aug 1, 2017, the bylaws of University of Science and Technology were adopted and Dr. Yu (Kai Yu, CEO of the Company) was elected as the president of the university. HK China Education Group (wholly-owned subsidiary of the Company incorporated in Hong Kong with limited liability on May 25, 2017) subscribed for 10,000 shares of common stock, and is the sole member of the university.



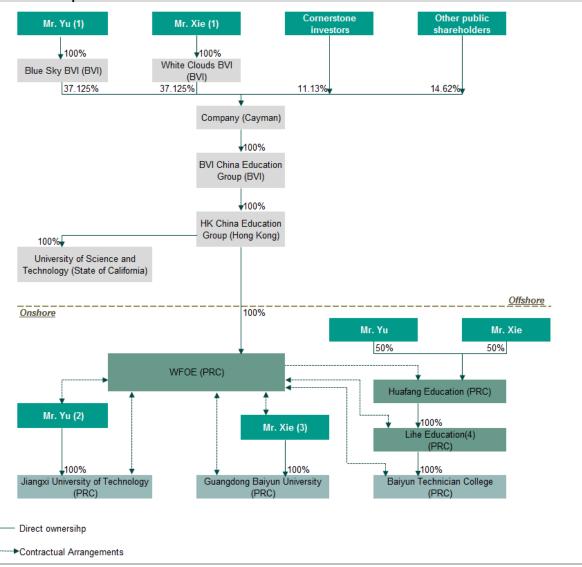
#### IPO - Over-subscribed with 4 cornerstone investors

#### IPO at issue price of HK\$ 6.45

The Group's IPO issue price was HK\$ 6.45, the mid-point of its price range of HK\$ 5.86 - 7.02. The overallotment option was partially exercised and new shares issued were 520,202,000. Net proceeds (before the effect of the exercise of over-allotment option in January 2018) after deducting the underwriting commission and issuing expenses is RMB 2,618.5mn.

Immediately after the IPO, public shareholders hold 25.75% of issued shares, while Mr. Yu and Mr. Xie respectively owned 37.125% of total issued shares. Four cornerstone investors participated in the IPO, including International Finance Corporation (IFC), GIC Private Limited (GIC), Value Partners Hong Kong Limited (Value Partners), and Greenwoods Asset Management Limited (Greenwoods). The cornerstone investors jointly hold 11.13% of total shares. The following chart shows the corporate structure immediately after IPO.

Exhibit 2: Post IPO corporate structure



#### Note:

- 1) Mr Yu and Mr Xie are parties acting in concert and the Group's controlling shareholders
- 2) Mr Yu is the sole sponsor of Jiangxi University of Technology 3) Mr Xie is the sole sponsor of Guangdong Baiyun University
- 4) Lihe Education is the sole sponsor of Baiyun Technician College

Source(s): The Group, ABCI Securities



#### Planned use of proceeds

Exhib	it 3: Planned	use of proceeds
#	Percentage	e Item
1)	59.5%	Acquisition of or cooperation with other universities both domestically and abroad
2)	26.9%	Develop new campus
3)	8.0%	Repay certain portion of bank loans
4)	2.9%	Supplement working capital
5)	1.1%	Establish teacher and staff training center
6)	1.1%	Research and development
7)	0.5%	Provision of scholarships
8)	0.5%	Maintenance, renovation and upgrading of existing schools

Source(s): Prospectus, ABCI Securities

The Group plans to use 59.5% of the IPO proceeds for acquisition of or cooperation with other universities domestically and abroad. The criteria for schools to be acquired have been laid out.

- The net proceeds will predominately be applied towards the acquisition of education institutions, while the rest will be flexibly applied towards developing cooperation arrangements with other universities
- For domestic universities: (i) located in coastal regions; (ii) located in first-tier cities, provincial capitals and other major cities; (iii) located in regions with substantial growth potential of net admission rates of higher education; (iv) located in regions with significant demand for labor market; (v) offering bachelor's degree programs and junior college diploma programs; and (vi) for those offering bachelor's degree, located in places where higher education institutions are concentrated or junior colleges with a campus size of over 200,000 sq.m.
- For overseas universities: (i) located in western Europe, United Kingdom, North America or Australia; (ii) offering programs in fashion, engineering, hotel management or corporate management; (iii) with a total number of student less than 1,000

As of Mar 14, 2018, the Group used RMB 208.5mn from the IPO proceeds to repay bank borrowings.



# Acquisition of the Zhengzhou and Xi'an schools

#### Introduction of the two acquired schools

The Group announced the acquisition of Zhengzhou School (Zhengzhou City Rail Transit School/鄭 州城軌交通中等專業學校) and Xi'an School (Xi'an Railway Technician College/西安鐵道技師學院,) on Mar 14, 2018. These schools are the leaders in their respective education segment by student enrollment. The acquisition means the school's student enrollment in 2016/17 school year would increase to ~120k, making it the largest HK-listed PRC education service provider.

Exhibit 4: Ranking of the two acquired schools by student enrollment (for 2016/17 school year)								
Private technician college in China		Private secondary v	ocational school	ol in China				
School	Enrollment	Location	School	Enrollment	Location			
Xi'an School	20k	Western China	Zhengzhou School	24k	Central China			
Guangzhou Baiyun Technician College	14k	Pearl River Delta	Vocational school A	8k	Pearl River Delta			
Technician College A	12k	Pearl River Delta	Vocational school B	6k	Yangtze River Delta			
Technician College B	8k	Northeast China	Vocational school C	5k	Yangtze River Delta			
Technician College C	7k	Central China	Vocational school D	5k	Pearl River Delta			

Source(s): F&S, the Group

Zhengzhou School is China's largest vocational school and the largest provider of railway education, according to the Group and F&S report. It provides a wide variety of courses relating to the operation and management of railway transit system. Its revenue and net profit reached RMB 200mn and RMB 23mn in 2017.

Xi'an School is China's largest technician college and the second largest provider of railway education. It is a mechanic and technician college that nurtures professional talents for rail transportation. It was founded in 2016 under the former name of (西安數位科技專修學院) and changed its present name to (西安鐵道技師學院) in 2015 with the approval of the Department of Human Resources and Social Security of Shaanxi Province. This school recorded revenue of RMB 143mn and a net loss of RMB 13mn in 2017.

Exhibit 5: Financial and operating data of the two schools Zhengzhou School Xi'an School 2017 2017 2015 2016 2015 2016 Revenue (RMB mn) 160 200 143 95 31 57 Net profit - after tax (RMB mn) N/A 29 23 N/A (8)(13)Total assets (RMB mn) N/A N/A 501 N/A N/A 249 Shareholder deficit (RMB mn) N/A N/A (395)N/A N/A (8)Enrollment (K) 21 5 8 20 15 24 Avg revenue/ student (RMB) 6333 7619 8333 6200 7125 7150

Source(s): The Group, ABCI Securities

#### Valuation of the targets and post-acquisition ownership structure

The Group will acquire 80% of Zhengzhou School's sole sponsor equity interest and 62% of Xi'an School's sole sponsor equity interest. According to the Group, the implied valuations of the Zhengzhou and Xi'an schools were 14.9x and 14.5x 18E P/E, which is not expensive in our view. For reference, its peer, Yuhua (6169 HK) acquired Lei Lie Ying Limited (which owns sponsor interest in a university in Hunan) at 23.57x 16 P/E.

The following table shows the deal structure and the valuation metrics of the two acquired schools.



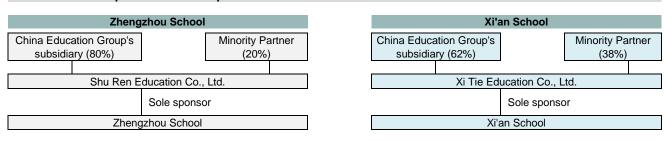
Exhibit 6: Zhengzho	u School acq	uisition detai	ls			
Consideration	Subject		Valuat	ion metrics		Post-acquisition arrangements
RMB 855mn (of which	80% of Shu Ren	Total valuation (RMB mn)	EV/EBITDA	P/E	Unit student valu (RMB)	1) Cut finance costs through repayment of high-interest loans; 2) Increase tuition fees; 3)
equity transfer and RMR 735mn is for	Education, the sole sponsor of		2018 2019	2018 2019	2018 201	Optimize management and improve efficiency; 4) Reduce HR and administrative cost through IT integration; 5) Share recruitment and
capital injection	Zhengzhou School	·	9.6 7.8	14.9 12.8	42,000 41,0	employment network: 6) Expand compute

Source(s): The Group, ABCI Securities

Exhibit 7: Xi'an School acquisition details									
Consideration	Subject	Valuation metri			rics			Post-acquisition arrangements	
RMB 576mn (including	62% equity interest of Xi	Total valuation (RMB mn)	EV/EBI	ITDA	P/	E			1) Cut finance costs through repayment of high-interest loans; 2) Expand campus capacity
RMB 472mn for equity transfer and RMB	Tie Education,		2018	2019	2018	2019	2018	2019	in 2018; 3)Improve student retention; 4) Optimize management and improve efficiency;
104mn for capital injection)	the sole	930	9.2	3.5	14.5	7.0	30,000		5) Reduce HR and administrative cost through IT integration; 6) Share recruitment and employment network

Source(s): The Group, ABCI Securities

**Exhibit 8: Post-acquisition ownership structure** 

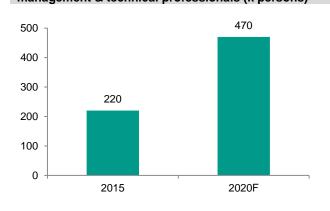


Source(s): The Group, ABCI Securities

#### Differentiation of the two target schools

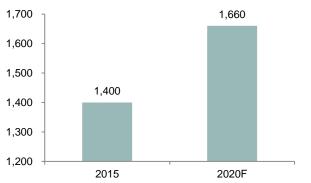
We believe the acquisition of these two schools specialized in railway-related education puts the Group in the position to cater to increasing demand for railway related talents and in line with China's "One Belt, One Road" initiative.

Exhibit 9: China's demand for city rail transit system management & technical professionals (k persons)



Source(s): The Group, ABCI Securities

Exhibit 10: China's demand for railway technical & maintenance professionals (k persons)



Source(s): The Group, ABCI Securities



# **Investment highlights**

# 1. Portfolio schools have strong reputation and top ranking with a wide range of degree offerings

The Group's portfolio schools have strong reputation and top ranking. According to the Prospectus, Jiangxi University of Technology has been ranked first in terms of overall competitive strength in the Private University and College Ranking of China since 2009; Guangdong Baiyun University was ranked first in terms of overall competitive strength among top 10 private universities and colleges in Guangdong province for 10 consecutive years from 2005 to 2014; Baiyun Technician College was ranked first in terms of educational competitive strength among technical schools in Guangdong province for seven consecutive years from 2008 to 2014.

According to the Prospectus, Guangdong Baiyun University and Jiangxi University of Technology were among the first few private bachelor's degree universities approved by the MOE in their respective provinces. Guangdong Baiyun University, as one of the promoters, was behind the historical launch of the Association of Universities (Colleges) of Applied Technology (應用技術大學 (學院)聯盟) in China.

The Group currently covers a wide range of higher education degrees and major offers. As of Aug 21, 2017, the Group's universities offer 80 bachelor's degree programs and 32 junior college diploma programs, covering nine bachelor's degree disciplines and 11 junior disciplines categorized by the MOE. The Group also offers 108 vocational education programs comprised of five technician diploma programs, 81 post-secondary vocational diploma programs and 22 secondary vocational diploma programs through the Baiyun Technician College. Moreover, as of Aug 31, 2017, the Group's schools have partnered with over 30 overseas universities/educational institutions in the US, the UK, Australia and South Korea to provide exchange programs and joint-education programs to the students.

#### 2. Scale enables synergy across schools

The Group is one of the leaders in the private higher education market and the private technical school industry. Including the Zhengzhou and Xi'an schools, student enrollment for 2016/17 would have exceeded 100k - the highest among all HK-listed PRC education players.

We believe large student enrollment would enable to the Group to attain economies of scale, which allows for the combining of student enrollment and marketing network resources among schools, development of degree and program offerings, implementation of inter-school cooperation, sharing of employment/internship information among schools, and more systematic teacher training. Its operational scale would also enable more bargaining power in the selection and negotiation with acquisition targets.

Exhibit 11: Comparison of total student enrollment of listed higher education players								
	2012/13	2013/14	2014/15	2015/16	2016/17			
China Education Group	N/A	61,981	63,548	63,367	75,255			
Minsheng Edu	29,441	29,032	29,626	30,616	41,120			
China New Higher Edu	N/A	18,590	25,040	29,716	46,460			
Yuhua (University)	N/A	19,568	23,692	25,063	27,770			
Virscend (University)	13,206	13,173	13,684	14,149	14,667			

Note: Except for 2016/17, China Education Group's enrollment figures included only Guangdong Baiyun University and Jiangxi University of Technology; 2016/17 figure included an additional school – Baiyun Technician College Source(s): Prospectus, Companies, ABCI Securities



#### 3. High quality education provides a competitive edge

The Group has a team of experienced and dedicated teachers. As of Aug 31, 2017, ~59.6% of the teachers have a master's degree or higher, and ~9.3% of the teachers have doctoral degrees; some of the teachers have authored and published text books on a variety of subjects. Moreover, 33.9% (or 1,195) of the teachers are double-qualification teachers – full-time teachers with the title of lecturer or above and certain professional qualification or industry experience. The Group's student-per-teacher ratio is relatively low compared to its peers. As of Aug 31, 2017, the Group had 3,520 teachers, and the corresponding student-per-teacher ratio was 21, which was low compared to peers.

The Group's focus on scientific research and innovation differentiates itself from other higher education institutions. As of Aug 31, 2017, the Group obtained 1,142 patents in China, which included 1,110 patents by Jiangxi University of Technology. According to the F&S report, as of June 30, 2017, Jiangxi University of Technology was the only private higher education institution in Jiangxi that has the Postdoctoral Innovation Practice Base approved by Jiangxi Provincial Department of Human Resources and Social Security, and was also the only private higher education institution in Jiangxi province that establishes the Provincial Science and Technology Park approved by Jiangxi Provincial Department of Science and Technology.

Exhibit 12: Student-per-teacher ration	o (persons)				
Students-per-teacher ratio (persons)	2012/13	2013/14	2014/15	2015/16	2016/17
China Education Group	N/A	N/A	N/A	N/A	21
Minsheng Edu	31	33	34	32	30
China New Higher Edu	N/A	15	17	20	21
Yuhua (University)	N/A	57	66	42	45
Virscend (University)	N/A	23	23	24	N/A
Number of teachers	2012/13	2013/14	2014/15	2015/16	2016/17
China Education Group	N/A	N/A	N/A	N/A	3,520
Minsheng Edu	953	883	883	947	1,090
	NI/A	1.272	1.451	1.496	1,596
China New Higher Edu	N/A	1,212	1,401	1,430	1,550
China New Higher Edu Yuhua (University)	N/A N/A	346	360	600	600

Note: Student numbers used in the calculation are as shown in Exhibit 37

Source(s): Prospectus, Companies, ABCI Securities calculation

#### 4. Strong student employment track records

The Group's initial employment rate has been higher than the national average. According to the Prospectus, from 2014 to 2016, initial employment rates of Jiangxi University of Technology were ~88%. The initial employment rates of Guangdong Baiyun University and Baiyun Technician College were above 96% and ~99% respectively. The initial employment rate for higher education graduates in China was slightly over 77%, according to F&S report. In addition, the Group's initial employment rates were on par or higher than the schools operated by Minsheng Education (1569 HK) and Yuhua (6169 HK).

We believe the Group has been able to leverage on the geographical location of the schools (Pan-Pearl River Delta Economic Zone & the Pan-Yangtze River Delta Economic Zone), the strong relationships with over 400 enterprises, and increasing demand for technical talents in recent years to deliver strong graduate employment results. More importantly, the Group's portfolio schools have developed various school-enterprise cooperation programs that would help students gain practical industry skills through customized curriculum, industry research collaboration, academic exchange, enterprise education support, and career support. E.g., Baiyun Technician College cooperated with BSH Home Appliances Science (Jiangsu) to establish a "Bosch and Siemens" class in electrical information engineering. Also, Jiangxi University of Technology has cooperated with PPG Paintings Trading (Shanghai), a world leading paints manufacturer, to offer PPG-tailored student cultivation programs for colorist.



Exhibit 13: Graduate employment rate comparison (%)			
	2014	2015	2016
Overall rate for higher education graduate in China	~77.5	~77.7	~77.9
(0)			
China Education Group <sup>(1)</sup>			
- Guangdong Baiyun University	~96.2	~96.6	~96.1
- Jiangxi University of Technology	88.3	88.4	88.1
- Baiyun Technician College	~99.3	~99.4	~99.4
Minsheng Edu <sup>(2)</sup>			
- Chongqing College of Humanities, Science and Technology	90.3	92.5	90.3
- Pass College of Chongqing Technology and Business University	88.9	86.8	89.5
- Chongqing Vocational College of Applied Technology	92.0	94.9	97.7
- Inner Mongolia Fengzhou Vocational College (Qingcheng Branch)	91.6	92.4	$35.9^{(3)}$
Yuhua Edu (University) <sup>(4)</sup>			
- Zhengzhou Technology and Business University	91.0	83.3	N/A
Virscend (University)	93.3	95.0	N/A
- Bachelor degree program	96.0	96.3	N/A
- Junior college degree program	93.3	95.0	N/A
China New Higher Education <sup>(5)</sup>			
- Yunnan School	98.6	98.8	98.8
- Guizhou School	N/A	97.1	97.6

#### Note:

- 1) <u>China Education Group</u>'s uses initial employment rate, which is defined as the percentage of graduates who entered into fulltime employment contracts, were self-employed, accepted an offer for higher degree or equivalent programs, or accepted an offer to pursue overseas study or employment, <u>before graduation</u>.
- 2) <u>Minsheng Education</u> uses initial employment rate, which is defined as a rate the total number of university graduates obtaining employment in business entities and government institutions, pursuing further studies or becoming self-employed, divided by the total number of university graduates <u>as of Sep1</u> during the year in which they graduated
- 3) According to Minsheng Education, the abnormally low initial employment rate was because the initial graduate employment rate was calculated as of Sep 1 during the year when the students graduated, and during the period from graduation in June to the date initial graduate employment was determined, the administrator in charge of student employment affairs at Inner Mongolia Fengzhou Vocational College was not at her post as she left in April 2016 due to an internal staff reorganization at the school; accordingly, as advised by the directors, Minsheng Education did not timely obtain all of the graduation data for the 2015/2016 school year, which resulted in a lower reported initial graduate employment rate
- 4) <u>Yuhua Education's university</u>'s initial employment rate is defined as the percentage of graduates who enter full-time employment contracts, are self-employed or accept an offer for graduate degree programs <u>before graduation</u>
- 5) <u>Virscend's university</u> measures graduate employment rates <u>upon graduation</u>; it defines employment rate as the percentage of graduates who obtain jobs or pursue graduate degrees
- 6) <u>China New Higher Education</u> uses employment rate, which is defined as a rate calculated by dividing the number of students who are able to find employment <u>within six months after their graduation</u> (including students who find employment in business entities, start own businesses or pursue further studies) by the total number of students graduated from the school for the relevant school year

Source(s): Prospectus, F&S report, Companies, ABCI Securities

# 5. Location of portfolio schools and quality of education enable high tuition fees and margins

Certain programs offered by the Group charged higher tuitions than its peers. Tuition range of the bachelor's degree program in Guangdong Baiyun University increased from RMB 18,000-25,000 in the 2013/14 school year to RMB 19,000-28,000 in the 2017/18 school year, and its junior college diploma program charges tuition of RMB 30,000 from school year of 2013/14 to 2017/18.



Exhibit 14: Comparison of HK-listed peers for programs with the highest tuition(RMB)											
Minsheng Education - Chongqing College of Humanities, Science and Technology											
Bachelor's degree programs	2012/13	2013/14	2014/15	2015/16	2016/17						
High	17,000	17,000	17,000	17,000	18,000						
Low	13,000	13,000	13,000	13,000	14,000						
<b>China New Higher Education - Yunnan Sch</b>	ool										
4-yr undergraduate programs	2012/13	2013/14	2014/15	2015/16	2016/17						
High	N/A	12,000	12,000	20,000	20,000						
Low	N/A	5,000	5,000	5,000	5,000						
Yuhua Education - University											
Bachelor's degree programs	2012/13	2013/14	2014/15	2015/16	2016/17						
High	N/A	15,100	15,100	15,100	15,100						
Low	N/A	13,100	13,100	13,100	13,100						
Virscend - University											
High	13,200	13,200	15,200	15,200	N/A						
Low	11,200	11,200	11,200	11,200	N/A						
China Education Group - Guangdong Baiyo	un University										
Bachelor's degree programs	2012/13	2013/14	2014/15	2015/16	2016/17						
High	N/A	25,000	25,000	25,000	26,000						
Low	N/A	18,000	18,000	18,000	19,000						
Junior college diploma programs	N/A	30,000	30,000	30,000	30,000						

Source(s): Prospectus, Companies, ABCI Securities

We believe the Group's higher tuition is enabled by its geographical advantage. Its portfolio schools are located in Guangzhou and Nanchang, which are the capital cities of Guangdong within the Pan-Pearl River Delta Economic Zone and Jiangsu within the Pan-Yangtze River Delta Economic Zone. Higher income level and stronger desire to pursue higher education for population residing in these regions enable the Group to charge higher tuition rates than its HK-listed peers. In addition, the quality of the educational programs offered and strong graduate employment track records also allow for greater pricing power.

We believe the Group's premium tuition level has supported margins. GPM improved from 50.3% in FY13 to 59.0% in FY17, although Yuhua's university had an even higher GPM of over 60% in FY16-17. The Group's NPM (to owners of the Company) improved from 37.6% in FY14 to 45.2% in FY17; edxcluding the listing expenses, core NPM would be higher at 50.0%. NPM (to owners of the Company) of China New Higher Education declined from 39.4% in FY14 to 32.8% in FY16 but rebounded to 56.3% in FY17, while that of Minsheng Education increased from 46.0% in FY13 to 54.4% in FY17.

<b>Exhibit 15: Comparison of margins</b>	(%)					
	FY-end	FY13	FY14	FY15	FY16	FY17
GPM						
China Education Group	Dec-31	N/A	50.3	50.8	53.0	59.0
Minsheng Edu	Dec-31	62.8	63.5	61.4	58.1	58.3
China New Higher Edu	Dec-31	N/A	48.8	49.5	48.0	54.9
Yuhua (University)	Aug-31	N/A	45.3	49.2	63.3	60.9
Virscend (University)	Dec-31	38.8	39.4	N/A	N/A	N/A
NPM (to owners of the Company)						
China Education Group	Dec-31	N/A	37.6	41.1	47.8	45.2
Minsheng Edu	Dec-31	46.0	46.4	47.7	54.7	54.4
China New Higher Edu	Dec-31	N/A	39.4	37.9	32.8	56.3

Source(s): the Group, Companies, ABCI Securities calculation

#### 6. Experienced management team supports continuous development

The Group has a strong management team with extensive experience in the education sector. Mr Yu and Mr Xie, founders of the Group, are veterans in the education industry with 24 years and 28 years of experience in the industry according to the Prospectus. Dr. Yu Kai, executive director and CEO of the Group, received his master's degree and Ph.D. degree in education studies from the University of Oxford, was executive director of the Center for the Study of Graduate Education of Shanghai Jiao Tong University Graduate School of Education from Nov 2009 to Jun 2017, and served as an



education consultant to the World Bank from Apr 2010 to June 2010 and from Dec 2010 to Apr 2011. Ms. Xie Shaohua, executive director of the Group, has 17 years of experience in the education industry and also has been the vice chairman of the Board of both Guangdong Baiyun University (since 2004) and Baiyun Technician College (since Apr 2014).

We believe the management team has been able to apply their experiences and skills in enhancing the operation of the portfolio schools. The Group's ROAA and ROAE have been stable in the past, and the decline in FY17 was due to the enlarged equity after the IPO.

Exhibit 16: Peer comparison – Return ratios (%)										
	FY-end	FY14	FY15	FY16	FY17					
ROAA										
China Education Group	Dec-31	N/A	11.0	11.3	8.1					
Minsheng Edu	Dec-31	9.0	9.9	11.8	8.1					
China New Higher Edu	Dec-31	N/A	8.9	6.9	10.2					
ROAE										
China Education Group	Dec-31	N/A	17.8	17.7	10.5					
Minsheng Edu	Dec-31	10.7	12.8	16.8	16.5					
China New Higher Edu	Dec-31	N/A	28.6	18.1	17.9					

Source(s): Prospectus, Companies, ABCI Securities calculation

#### 7. Sufficient cash to meet future expansion needs

As of end-FY17, the Group had RMB 3.24bn of net cash without any debts. Its cash position is the strongest among all HK-listed PRC education providers. Excluding the cash outflow required for developing the new campus (~RMB 606mn) and the cost of acquiring the Zhengzhou and Xi'an schools (RMB 1,431mn), there will still be sufficient liquidity to meet its future expansion needs.



#### **Valuation**

#### Decent growth from the two acquired schools

The two schools acquired by the Group would provide strong growth drivers in the next few years. In addition, the three original portfolio schools would maintain the ability to raise tuition. We project in 2017-20E total revenue would grow by 29.4% CAGR. The acquisition of the two schools may initially put pressure on the Group's margins, but overall margin would improve afterwards. We expect in 2017-20E GPM and NPM (to owners of the Company) would improve from 56.6% and 47.9% to 57.7% and 50.7%.

#### DCF-derived TP at HK\$ 14.11

Assumptions in our DCF model include:

- 1. A beta of 0.8150:
- 2. A risk-free rate of 1.96%;
- 3. An expected market return of 17.25%;
- 4. Terminal growth rate at 5%
- 5. Based on the net cash position, we assume no borrowings would incur in the future

Based on our DCF model, we set the TP at HK\$ 14.11, which represents 29.43x/21.61x 18E/19E P/E or 2.74x/2.43x 18E/19E P/B.

#### Peer valuation analysis

The Group's valuation has been going up since IPO, indicating that the market is confident in the Group's prominent position in the education segment and its execution capability. We have observed that divergence in valuation among higher education players in the HK market has been increasing over the past few months.

Exhibi	Exhibit 17: Valuation comparison of the listed companies in education sector										
		Fundamental education provider provider			Avg fundamental education	Avg - higher education	Avg – education sector				
Ticker		6068 HK	1317 HK	6169 HK	1565 HK	1569 HK	2001 HK	839 HK			
ENG na	ame	Wisdom	Maple Leaf	Yuhua	Virscend	Minsheng	CNHE	CEG			
CHN na	ame	睿见教育	枫叶教育	宇华教育	成实外教育	民生教育	中国新高教	中教控股			
FY end		31-Aug	31-Aug	31-Aug	31-Dec	31-Dec	31-Dec	31-Dec			
Price (H	HK\$)	6.03	10.98	4.27	4.88	1.61	5.76	10.16			
Mkt Ca	p (HK\$ mn)	12,313	16,356	13,941	15,073	6,469	8,243	20,525			
P/E	18E	35.83	19.68	17.40	25.73	12.86	16.13	29.43	24.66	19.47	22.44
(x)	19E	25.57	16.53	15.11	19.68	12.73	13.20	21.61	19.22	15.85	17.78
P/B	18E	5.10	3.82	2.93	4.07	1.35	2.84	2.74	3.98	2.31	3.26
(x)	19E	4.25	3.38	2.62	3.58	1.20	2.28	2.43	3.46	1.97	2.82
Yield	18E	0.99	2.13	2.93	1.63	1.46	1.89	1.14	1.92	1.50	1.74
(%)	19E	1.39	2.33	3.51	2.13	1.85	2.37	1.55	2.34	1.92	2.16
ROAA	18E	7.65	11.37	12.57	11.03	9.06	10.54	8.30	10.65	9.30	10.07
(%)	19E	8.84	11.80	12.65	14.01	7.78	11.03	9.44	11.82	9.41	10.79
ROAE	18E	15.31	19.82	17.36	16.93	10.60	19.24	10.15	17.35	13.33	15.63
(%)	19E	18.12	20.89	17.94	19.61	9.92	19.74	11.91	19.14	13.85	16.87

<sup>\*</sup> As of end of Mar 20, 2018

Source(s): Bloomberg, ABCI Securities estimates



#### **Risk factors**

#### **Growth risk**

The Group's main revenue source comes from tuition income, which contributed to 91.3% of total revenue in FY16. Tuition income is determined by tuition levels of programs offered and student enrollment. Assuming no acquisition is conducted, if the Group could not continue to raise the tuition level, or expand its student enrollment, the Group's revenue growth would fluctuate or decline in the future. Stalled growth momentum in the past few years can be a cause for concern.

According to our calculation based on data from the Prospectus, a 10% increase/decrease in tuition fee income would lead to 18.57% increase/decrease in the FY16 profit; a 5% increase/decrease in tuition fee income would lead to 9.29% increase/decrease in the FY16 profit. Sensitivity of net profit to changes in tuition fee income was higher in previous FYs.

Exhibit 18: Sensitivity analysis of tuition fee income Tuition fee income (FY ends at Dec 31) (decrease)/increase by FY16 **FY15** 1H16 1H17 Profit for the FY/period (decrease)/increase (RMB k) (36,827)(10%)(75,005)(77,560)(78,628)(38,432)(5%)(37,503)(38,780)(39,314)(19,216)(18,413)5% 37,503 38,780 39,314 19,216 18,413 10% 75,005 77,560 78,628 38,432 36,827 Percentage of profit for the corresponding FY/period (%) (10%) (24.24)(19.08)(21.43)(18.57)(17.68)(5%) (10.72)(9.54)(12.12)(9.29)(8.84)5% 12.12 10.72 9.29 8.84 9.54 10% 24.24 21.43 18.57 17.68 19.08

Note: net profit from operation was used in percentage calculation

Source(s): Prospectus, ABCI Securities calculation

#### Cost risk

As the Group continues to expand student enrollment and recruit qualified teachers to maintain education quality, teaching staff costs may rise in the future and pressure margins. According to our calculation based on data from the Prospectus, a 10% decrease/increase in staff cost in FY16 would lead to 4.57% increase/decrease in the net profit. Sensitivity of net profit to staff cost change was even higher in previous FYs.

Exhibit 19: Teaching staff costs of the Group									
	FY14	FY15	FY16	FY17	1H17				
Costs (RMB k)	151,297	170,952	171,850	195,017	86,551				
Growth (YoY %)	N/A	13.0	0.5	13.5	(2.2)				
% of total revenue	18.4	20.2	20.0	20.5	21.4				

Source(s): Prospectus, ABCI Securities calculation

Exhibit 20: Sensitivity and	alysis of tea	ching staff	costs		
Teaching staff costs			(FY ends at D	ec 31)	
(decrease)/increase by	FY14	FY15	FY16	1H16	1H17
	F	Profit for the F	Y/period (decre	ase)/increase (RMB k)	
(10%)	14,941	17,721	19,352	9,588	10,148
(5%)	7,470	8,860	9,676	4,794	5,074
5%	(7,470)	(8,860)	(9,676)	(4,794)	(5,074)
10%	(14,941)	(17,721)	(19,352)	(9,588)	(10,148)
	Pe	rcentage of pi	rofit for the corre	esponding FY/period (%)	
(10%)	4.83	4.90	4.57	4.41	5.26
(5%)	2.41	2.45	2.29	2.20	2.63
5%	(2.41)	(2.45)	(2.29)	(2.20)	(2.63)
10%	(4.83)	(4.90)	(4.57)	(4.41)	(5.26)

Note: net profit from operation was used in percentage calculation

Source(s): Prospectus, ABCI Securities calculation



#### Acquisition/business cooperation risk

As the Group continues to expand through acquisition, the Group may face fluctuating growth and margins as the targets may not perform as well as the Group's portfolio schools.

#### Education quality and student dropout risk

In the past few years, the Group continued to see student dropouts in its portfolio schools. Although students drop out for various reasons, hence the unpredictability in the number each year, we believe failure to maintain its education quality would result in a higher dropout rate and profitability and growth may suffer.

Exhibit 21: Student dropouts and related refunds				
As of Aug 31	2013/14	2014/15	2015/16	2016/17
Student dropout				
Jiangxi University of Technology	500	506	231	323
Guangdong Baiyun University	12	13	11	22
Baiyun Technician College	236	306	390	294
Tuition refund (RMB)				
Jiangxi University of Technology	141,797	143,635	84,960	106,072
Guangdong Baiyun University	181,200	236,700	160,300	341,800
Baiyun Technician College	1,036,992	1,421,170	1,544,780	1,040,755
Boarding fee refund (RMB)				
Jiangxi University of Technology	81,110	25,500	37,130	30,347
Guangdong Baiyun University	14,400	16,050	12,900	26,250
Baiyun Technician College	225,705	286,600	245,250	187,250

Note: The Group obtained control of Baiyun Technician College on Aug 14 2017

Source(s): Prospectus, ABCI Securities

In terms of the absolute number, the Group had the highest student dropout in absolute number among its HK-listed peers for most of the time in the past few years. Its student dropouts increased from 512 in the 2013/14 school year to 639 in the 2016/17 school year. But in terms of percentage of total student enrollment, the Group's dropout rate has been relatively stable.

Exhibit 22: Comparison of student dropouts				
	2013/14	2014/15	2015/16	2016/17
Student dropouts (persons)				
China Education Group	512	519	242	639
Minsheng Edu	127	163	121	N/A
China New Higher Edu	333	340	292	168
Virscend (University)	40	41	15	N/A
Percentage of total student enrollment (%)				
China Education Group	0.83	0.82	0.38	0.85
Minsheng Edu	0.44	0.55	0.40	N/A
China New Higher Edu	1.79	1.36	0.98	0.50
Virscend (University)	0.30	0.30	0.11	N/A

Source(s): Prospectus, Companies, ABCI Securities calculation

#### Risk of expansion bottleneck

The Group's expansion can be constrained by the approvals from the authorities. Such approvals usually involve admission quotas, which is the maximum number of students the school is permitted to admit each school year by the government. If the Group could not obtain higher admission quota from the authorities, its expansion plan may be derailed.

The Group's expansion can also be confined by the portfolio schools' capacity. If the Group fails to build new campus for existing schools or acquire new schools in a timely manner, future growth would suffer.



Exhibit 23: Utilization rate comparison (%)					
	2012/13	2013/14	2014/15	2015/16	2016/17
China Education Group					
Jiangxi University of Technology	N/A	95.0	98.6	98.5	90.0
Guangdong Baiyun University	N/A	99.6	99.6	97.6	95.0
Baiyun Technician College	N/A	86.7	87.5	95.3	93.3
Minsheng Edu					
Chongqing College of Humanities, Science and Technology	83.0	81.9	82.6	84.2	85.7
Pass College of Chongqing Technology and Business University	97.0	88.9	97.5	88.7	89.0
Chongqing Vocational College of Applied Technology	71.8	66.3	56.7	49.3	86.5
Inner Mongolia Fengzhou Vocational College (Qingcheng Branch)	72.7	38.5	32.4	47.3	81.5
China New Higher Edu					
Yunnan School	N/A	72.3	84.5	81.7	89.9
Guizhou School	N/A	80.3	91.9	91.0	86.7
Yuhua (University)	N/A	72.5	87.7	83.5	N/A
Virscend (University)	95.4	95.1	98.8	98.3	N/A

Source(s): Prospectus, Companies, ABCI Securities

#### Regulatory risk

Private education industry in China still faces a great deal of uncertainties due to the lack of detailed regulation of the conversion of existing private schools into for-profit private schools or non-profit private schools. The exact impacts on operations and finances of the Group's portfolio schools are therefore hard to be quantified at the moment. Other than the regulatory issue mentioned above, it is difficult to predict whether new regulations/policies would be published by the authorities in the future and to what extent they would impact the private education industry.

#### Reputation risk

The Group is highly susceptible to reputation damage due to a large number of unpredictable incidents, which include, but not limited to, employment situation of graduates, accidents on campus, teacher/student's academic/personal misconducts. According to the Prospectus, in 2013, certain teachers and students of Jiangxi University of Technology colluded to cheat on the National Higher Education Entrance Examination for Adults. This led to the disqualification of Jiangxi University of Technology from admitting students for adult higher education for the year of 2014.



# **Financial statement of the Group**

#### Consolidated income statement (FY15A-FY20E)

FY ends at Dec 31 (RMB mn)	FY16A	FY17A	FY18E	FY19E	FY20E
Revenue	861	949	1,315	1,816	2,058
- Tuition fees	786	858	1,247	1,779	2,022
- Boarding fees	54	65	88	124	140
- Ancillary services	21	26	39	62	84
COGS	(405)	(389)	(571)	(771)	(871)
Gross profit	457	560	744	1,045	1,187
Other income	74	55	60	94	124
Investment income	18	15	23	20	33
Other gains and losses	3	1	26	2	31
Selling expenses	(9)	(10)	(15)	(21)	(23)
Admin expenses	(102)	(133)	(204)	(267)	(288)
Others	0	(45)	0	0	0
Finance costs	(15)	(18)	9	7	8
Pretax profit	425	423	642	879	1,071
Tax	(2)	(2)	(13)	(21)	(27)
Net profit from operation	423	421	630	858	1,044
Net profit from discontinued operation	(11)	7	0	0	0
Total net profit	413	429	630	858	1,044
<ul> <li>Profit attributable to shareholders</li> </ul>	411	429	630	858	1,044
- Minority interest	1	0	0	0	0
Dividend	0	0	189	257	313
EPS (RMB cents)					
- Basic	27.42	28.16	31.18	42.47	51.68
- Diluted	N/A	28.16	31.18	42.47	51.68
DPS (RMB cents)	0.00	0.00	9.35	12.74	15.51

Source(s): Prospectus, ABCI Securities estimates

#### Consolidated balance sheet (FY15A-FY20E)

FY ends at Dec 31 (RMB mn)	FY16A	FY17A	FY18E	FY19E	FY20E
Bank balances and cash	247	3,243	3,078	4,965	5,824
Structured deposits	418	51	991	454	1,179
Trade receivables, deposits, prepayments and other					
receivables	40	72	93	115	112
Others	624	5	25	15	30
Current assets	1,329	3,370	4,186	5,549	7,145
PP&E	2,416	2,639	3,662	3,549	3,288
LT Prepaid lease payment	51	55	83	80	76
Goodwill	0	326	326	326	326
Intangible assets	0	240	240	240	240
Others	71	43	82	70	69
Non-current assets	2,537	3,302	4,393	4,264	3,998
Total assets	3,866	6,672	8,579	9,812	11,143
ST Deferred revenue	595	727	1,283	1,661	1,710
ST Borrowing	210	0	0	0	0
Trade payables, other payables and accrued expenses	217	208	338	289	461
Others	48	12	76	76	120
Current liabilities	1,070	947	1,696	2,026	2,291
LT Borrowing	243	0	0	0	0
Others	26	86	114	160	181
Non-current liabilities	269	86	114	160	181
Equity to owners of the Company	2,524	5,639	6,769	7,627	8,671
Minority interest	4	0	0	0	0
Equity	2,527	5,639	6,769	7,627	8,671
Total liabilities and equity	3,866	6,672	8,579	9,812	11,143

Source(s): Prospectus, ABCI Securities estimates



#### Consolidated cash flow statement (FY15A-FY20E)

FY ends at Dec 31 (RMB mn)	FY16A	FY17A	FY18E	FY19E	FY20E
Net profit for the period	413	429	630	858	1,044
Depreciation	113	123	140	158	172
Change in working capital	(38)	223	672	324	218
Others	(6)	(15)	(42)	(2)	(39)
Cash flow from operating activities	481	760	1,400	1,338	1,395
Capex	(298)	(370)	(411)	(388)	(224)
Acquisition of schools	0	0	(1,137)	(154)	(120)
Others	(275)	611	(718)	715	(494)
Cash flow from investing activities	(573)	241	(2,267)	172	(838)
Change in borrowings	(8)	(453)	0	0	0
Interest paid	(27)	(21)	0	0	0
Others	0	2,469	701	377	303
Cash flow from financing activities	(34)	1,995	701	377	303
Net change in cash	(127)	2,996	(165)	1,887	859
Cash and cash equivalent - beg	374	247	3,243	3,078	4,965
Cash and cash equivalent - end	247	3,243	3,078	4,965	5,824

Source(s): Prospectus, ABCI Securities estimates

#### Key operating and financial ratios (FY15A-FY20E)

Growth (YoY %)         Revenue       1.8       10.2       38.5       38.1         - Tuition fees       1.4       9.1       39.2       37.8         - Boarding fees       4.1       21.4       29.1       36.6         - Ancillary services       13.3       24.2       39.8       51.5         Gross profit       6.2       22.6       32.9       40.5         Pretax profit       16.7       (0.5)       51.7       36.8         Total net profit (to owners of the Company)       18.3       4.3       46.8       36.2         Profitability ratios (%)         GPM       53.0       59.0       56.6       57.5         Pretax margin       49.4       44.6       48.8       48.4         Total NPM (to owners of the Company)       47.8       45.2       47.9       47.2         Revenue composition (%)         Tuition fees       91.3       90.3       90.8       90.6         Boarding fees       6.2       6.9       6.4       6.3         Ancillary services       2.5       2.8       2.8       3.1	13.3
- Tuition fees 1.4 9.1 39.2 37.8 - Boarding fees 4.1 21.4 29.1 36.6 - Ancillary services 13.3 24.2 39.8 51.5 Gross profit 6.2 22.6 32.9 40.5 Pretax profit 16.7 (0.5) 51.7 36.8 Total net profit (to owners of the Company) 18.3 4.3 46.8 36.2 Profitability ratios (%) GPM 53.0 59.0 56.6 57.5 Pretax margin 49.4 44.6 48.8 48.4 Total NPM (to owners of the Company) 47.8 45.2 47.9 47.2 Revenue composition (%) Tuition fees 91.3 90.3 90.8 90.6 Boarding fees 6.2 6.9 6.4 6.3	
- Boarding fees 4.1 21.4 29.1 36.6 - Ancillary services 13.3 24.2 39.8 51.5 Gross profit 6.2 22.6 32.9 40.5 Pretax profit 16.7 (0.5) 51.7 36.8 Total net profit (to owners of the Company) 18.3 4.3 46.8 36.2  Profitability ratios (%) GPM 53.0 59.0 56.6 57.5 Pretax margin 49.4 44.6 48.8 48.4 Total NPM (to owners of the Company) 47.8 45.2 47.9 47.2  Revenue composition (%) Tuition fees 91.3 90.3 90.8 90.6 Boarding fees 6.2 6.9 6.4 6.3	
- Ancillary services Gross profit 6.2 22.6 32.9 40.5 Pretax profit 16.7 (0.5) 51.7 36.8 Total net profit (to owners of the Company) 18.3 4.3 46.8 36.2  Profitability ratios (%) GPM 53.0 59.0 56.6 57.5 Pretax margin 49.4 44.6 48.8 48.4 Total NPM (to owners of the Company) 47.8 45.2 47.9 47.2  Revenue composition (%) Tuition fees 91.3 90.3 90.8 90.6 Boarding fees 6.2 6.9 6.4 6.3	12.6
Gross profit       6.2       22.6       32.9       40.5         Pretax profit       16.7       (0.5)       51.7       36.8         Total net profit (to owners of the Company)       18.3       4.3       46.8       36.2         Profitability ratios (%)         GPM       53.0       59.0       56.6       57.5         Pretax margin       49.4       44.6       48.8       48.4         Total NPM (to owners of the Company)       47.8       45.2       47.9       47.2         Revenue composition (%)         Tuition fees       91.3       90.3       90.8       90.6         Boarding fees       6.2       6.9       6.4       6.3	11.6
Pretax profit       16.7       (0.5)       51.7       36.8         Total net profit (to owners of the Company)       18.3       4.3       46.8       36.2         Profitability ratios (%)         GPM       53.0       59.0       56.6       57.5         Pretax margin       49.4       44.6       48.8       48.4         Total NPM (to owners of the Company)       47.8       45.2       47.9       47.2         Revenue composition (%)         Tuition fees       91.3       90.3       90.8       90.6         Boarding fees       6.2       6.9       6.4       6.3	37.0
Total net profit (to owners of the Company)  18.3  4.3  4.8  36.2  Profitability ratios (%)  GPM  53.0  59.0  56.6  57.5  Pretax margin  49.4  44.6  48.8  48.4  Total NPM (to owners of the Company)  47.8  45.2  47.9  47.2  Revenue composition (%)  Tuition fees  91.3  90.3  90.8  90.6  Boarding fees  6.2  6.9  6.4  6.3	13.6
Profitability ratios (%)         GPM       53.0       59.0       56.6       57.5         Pretax margin       49.4       44.6       48.8       48.4         Total NPM (to owners of the Company)       47.8       45.2       47.9       47.2         Revenue composition (%)         Tuition fees       91.3       90.3       90.8       90.6         Boarding fees       6.2       6.9       6.4       6.3	21.9
GPM       53.0       59.0       56.6       57.5         Pretax margin       49.4       44.6       48.8       48.4         Total NPM (to owners of the Company)       47.8       45.2       47.9       47.2         Revenue composition (%)         Tuition fees       91.3       90.3       90.8       90.6         Boarding fees       6.2       6.9       6.4       6.3	21.7
Pretax margin       49.4       44.6       48.8       48.4         Total NPM (to owners of the Company)       47.8       45.2       47.9       47.2         Revenue composition (%)       Tuition fees       91.3       90.3       90.8       90.6         Boarding fees       6.2       6.9       6.4       6.3	
Total NPM (to owners of the Company)       47.8       45.2       47.9       47.2         Revenue composition (%)       Tuition fees       91.3       90.3       90.8       90.6         Boarding fees       6.2       6.9       6.4       6.3	57.7
Revenue composition (%)         Tuition fees       91.3       90.3       90.8       90.6         Boarding fees       6.2       6.9       6.4       6.3	52.0
Tuition fees 91.3 90.3 90.8 90.6 Boarding fees 6.2 6.9 6.4 6.3	50.7
Boarding fees 6.2 6.9 6.4 6.3	
ŭ	90.0
Ancillary services 2.5 2.8 2.8 3.1	6.2
	3.7
Return ratios (%)	
ROAA 11.6 8.0 8.3 9.4	10.1
ROAE 18.2 10.3 10.1 11.9	12.8
Liquidity ratio (x)	
Current ratio 1.2 3.6 2.5 2.9	3.3
Quick ratio 1.2 3.6 2.5 2.9	3.3
Cash ratio 0.2 3.4 1.9 2.6	2.6
Leverage ratios (%)	
Total debt to Equity 17.9 0.0 0.0 0.0	0.0
Total debt to Total assets 11.7 0.0 0.0 0.0	0.0
Net (debt)/cash to Equity (8.1) 57.5 44.2 63.4	65.5
Net (debt)/cash to Total assets (5.3) 48.6 35.2 49.9	51.6

Source(s): Prospectus, ABCI Securities estimates

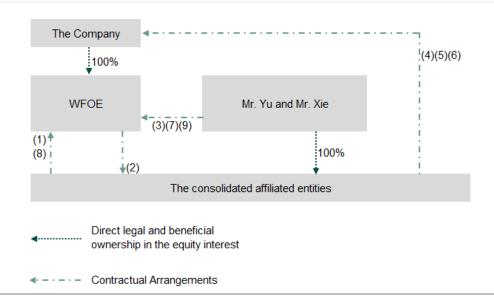


# **Appendix I: Management team of the Group**

Name	Age	Position	Date of joining THE Group	Effective date of appointment as a Director	Roles and responsibilities	Relationship with other Director(s) or senior management
Mr Yu Guo (于果)	55	Executive Director and co-chairman of the Board	Jan-1994	May-2017	Strategic development, overall operational management and major decision making	Mr Yu is the father of Dr. Yu.
Mr Xie Ketao (謝可滔)	52	Executive Director and co-chairman of the Board	Dec-1989	May-2017	Strategic development, overall operational management and major decision making	Mr Xie is the brother of Ms. Xie
Dr. Yu Kai (喻愷)	32	Executive Director and chief executive officer	Oct-2013	Aug-2017	Strategic development and daily management	Dr. Yu is the son of Mr Yu.
Ms. Xie Shaohua (謝少華)	54	Executive Director	Feb-1991	Aug-2017	Strategic development and daily management	Ms. Xie is the sister of Mr Xie.
Dr. Gerard A. Postiglione	66	Independent non-executive Director	Aug-2017	Aug-2017	Supervising and providing independent judgment to the Board	N/A
Dr. Rui Meng (芮萌)	49	Independent non-executive Director	Aug-2017	Aug-2017	Supervising and providing independent judgment to the Board	N/A
Dr. Wu Kin Bing (鄔健冰)	65	Independent non-executive Director	Aug-2017	Aug-2017	Supervising and providing independent judgment to the Board	N/A

Source(s): Prospectus, ABCI Securities

# Appendix II: Current flow of economic benefits of the Group



#### Note:

- 1) Payment of service fees
- 2) Provision of exclusive technical and management consultancy services
  3) Exclusive call options to acquire all or part of portfolio school sponsors' or equity interests in the Group's PRC operating schools, Huafang Education or Lihe
- 4) Entrustment of school sponsors' rights in the Group's PRC operating schools
- 5) Entrustment of directors' rights in the Group's PRC operating schools by directors of the Group's PRC operating schools including directors' powers of
- 6) Entrustment of shareholders' rights in Huafang Education and Lihe Education including shareholders' powers of attorney
- 7) Entrustment of school sponsors' right including school sponsors' powers of attorney
   8) Pledge of receivables by Jiangxi University of Technology and Guangdong Baiyun University of their interest in certain receivables and any proceeds from the sale or transfer of the sponsor interests in Guangdong Baiyun University and Jiangxi University of Technology by Mr Yu and Mr Xie (as the case may be).
   9) Pledge of all the equity interests in Lihe Education by Huafang Education and in Huafang Education by Mr Yu and Mr Xie Source(s): Prospectus, ABCI Securities



# Appendix III: Subsidiaries/organizations disposed in the process of reorganization

Organizations disposed by the G	roup				
Organization	Deal objective	Consideration	Buyer	Competition date	
Tianxing Social Services Centre (天星社會工作服務中心)	Change of sponsor interest agreement	RMB 30,000	Independent Third Parties, who are employees of Guangdong Baiyun University	26-Jun-17	29-May-17
Guangdong Baiyun University Students Human Resources Company Limited (廣東白雲大學生人才資源有限公司)	Selling 70% equity interest	RMB 3.5 million	Independent Third Parties	23-May-17	25-Aug-17
Jiangxi Jiangke Technology Park Management Company Limited (江西江科科技園管理有限公司)	Selling 100% equity interest	RMB 5.8 million	2 Independent Third Parties	9-May-17	24-May-17
Affiliated High School of the Jiangxi University of Technology (江西科技學院附屬中學)	Transfer the entire sponsor interest of the Affiliated High School of the Jiangxi University of Technology (江西科技學院附屬中學)		An Independent Third Party, a company beneficially owned by a former employee of Jiangxi University of Technology	27-May-17	24-May-17
Jiangxi University of Technology Foundation (江西科技學院基金會)	Liquidate the fund	N/A	N/A	N/A	N/A

Source(s): Prospectus, ABCI Securities

Details of the consideration, and asset	Tianxing Social	Baiyun Human	Jiangxi Technology	Jiangxi Affiliated
(RMB k)	Services Center	Resources	Park	High School
Total consideration	30	3,500	5,800	26,000
Cash received	0	0	5,800	26,000
Consideration receivables	30	3,500	0	0
Net (liabilities) assets disposed of	(960)	6,523	6,071	10,094
PP&E	286	30	1,282	35,613
Deposits paid for acquisition of PP&E	0	0	0	973
Amount due from a former related party	0	1,526	0	
Inventories	0	0	0	64
Trade and other receivables	883	3		3,676
Bank balances and cash	100	11,735	5,399	23,837
Deferred revenue	0	0	0	(37,837)
Amount due to former group company	(2,000)	0	0	(5,218)
Trade and other payables	(229)	(5,866)	(610)	(11,014)
Income tax payable	0	(905)	0	0
Gain on disposal	990	(1,066)	(271)	15,906
Consideration	30	3,500	5,800	26,000
Net liabilities (assets) disposed of	960	(6,523)	(6,071)	(10,094)
Non-controlling interests		1,957		
Net cash inflow arising on disposal	(100)	(11,735)	401	2,163
Cash consideration received	0	0	5,800	26,000
Less: bank balances and cash disposed of	(100)	(11,735)	(5,399)	(23,837)

Source(s): Prospectus, ABCI Securities

Disposal of other business interests by directors								
Organization	Time of disposal	Buyer	Original ownership	Organization description				
Guangzhou Yuntao Education Technology Company Limited (廣州雲濤教育科技有限公司)	May-17	Independent Third Parties	70%: Ms. Xie Shaohua (executive Director and sister of Mr Xie) 30%: spouse of Mr Xie	A company primarily engaged in the provision of technical services related to education software platforms				
Jiangxi Lantian Driving Training Centre Company Limited (江西藍天駕駛培訓中心有限公司)	May-17	An Independent Third Party	90% - Dr. Yu (executive Director and son of Mr Yu)	A company primarily engaged in the provision of driving training services				

Source(s): Prospectus, ABCI Securities



# Appendix IV: Summary of portfolio schools in Guangdong and Jiangxi

School	Program offerings	Approximate campus size	Academic structure	Introduction
Universities				
Jiangxi University of Technology	35 bachelor's degree programs and 31 junior college diploma programs, including automobile service engineering, computer science and technology, international economic and trade, civil engineering, materials science and engineering, and mechanical engineering	1.3 mn sq.m.	12 colleges and 15 research institutes	Ranked first in terms of overall competitive strength in the Private University and College Ranking of China (中國民辦院校綜合競爭力排行榜) since 2009 <sup>(1)</sup> The largest private university in China in terms of student enrolment according to the F&S Report; and one of the first few private universities in Jiangxi province approved by the MOE
Guangdong Baiyun University	45 bachelor's degree programs and 1 junior college diploma program, including mechanical design manufacturing and automation, business administration, electronic information engineering, logistics management, accounting, product design, fashion design and engineering, civil engineering, and Japanese	351.1 k sq.m.	16 colleges and 6 research institutes	Ranked first in terms of overall competitive strength among top 10 private universities and colleges in Guangdong province for ten consecutive years from 2005 to 2014 <sup>(2)</sup> One of the first few private universities in Guangdong province approved by the MOE
Technical scho	ool			
Baiyun Technician College	108 vocational education programs, including interior design, civil engineering, electromechanical integration, computer programming, computer network applications, accounting, e-commerce, culinary art, automotive testing and maintenance, and fashion design and marketing	61.8 k sq.m.	9 academic departments and 1 research institute	Ranked first in terms of educational competitive strength among technical schools in Guangdong province for seven consecutive years from 2008 to 2014 <sup>(2)</sup> The largest private technical school in China in terms of student enrolment according to the F&S Report

Source(s): Prospectus, F&S report, ABCI Securities

there is no public disclosure of such ranking from 2015 onwards

# Appendix V: Summary of student enrollments of portfolio schools in **Guangdong and Jiangxi**

Exhibit 2: Breakdown of student enrollment (As of Aug 31)									
	Stude	ent enrollm	ent (persor	Growth (YoY %)					
School year	2013/14	2014/15	2015/16	2016/17	2014/15	2015/16	2016/17		
Total enrollment	61,981	63,548	63,367	75,255					
Jiangxi University of Technology	39,822	38,857	37,702	35,982	(2.42)	(2.97)	(4.56)		
Bachelor's degree program	18,904	21,242	21,765	20,288	12.37	2.46	(6.79)		
Junior college diploma program	15,597	16,957	15,500	14,397	8.72	(8.59)	(7.12)		
Continuing education program	5,321	658	437	1,297	(87.63)	(33.59)	196.80		
Guangdong Baiyun University	22,159	24,691	25,665	25,741	11.43	3.94	0.30		
Bachelor's degree programs	15,444	17,024	16,918	16,963	10.23	(0.62)	0.27		
Junior college diploma programs	224	209	195	226	(6.70)	(6.70)	15.90		
Continuing education programs	6,491	7,458	8,552	8,552	14.90	14.67	0.00		
Baiyun Technician College	12,944	12,820	14,016	13,532	(0.96)	9.33	(3.45)		
Secondary vocational diploma programs	3,104	3,042	3,132	2,857	(2.00)	2.96	(8.78)		
Post-secondary vocational diploma programs	9,307	9,316	10,422	10,241	0.10	11.87	(1.74)		
Technician diploma programs	533	462	462	434	(13.32)	0.00	(6.06)		
Noto:	•			•					

<sup>1)</sup> Total number of students in the 2013/14, 2014/15 and 2015/16 school years only included the total number of students of Jiangxi University of Technology and Guangdong Baiyun University

2) Total number of students in the 2016/17 school year included total number of students of Jiangxi University of Technology, Guangdong Baiyun

<sup>(1)</sup> Ranked by Research Centre for China Science Evaluation and Evaluation Centre for China Education Quality of Wuhan University in association with nseac.com. (2) Ranked by Guangdong Provincial Academy of Social Sciences and Guangdong General Survey and Research Centre. So far as the Group's directors are aware,

University and Baiyun Technician College

<sup>3)</sup> The number of students enrolled in Jiangxi University of Technology in the 2014/2015, 2015/2016 and 2016/2017 school years decreased because the school had tightened its admission criteria since the 2014/2015 school year in order to improve the overall quality of students

<sup>4)</sup> On Aug 14, 2017, the Group obtained control of Baiyun Technician College, which also offers short-term training education programs Source(s): Prospectus, ABCI Securities calculation



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#### **Analyst Certification**

I, PAN Hongxing, Paul, being the person primarily responsible for the content of this research report, in whole or in part, hereby certify that all of the views expressed in this report accurately reflect my personal view about the subject company or companies and its or their securities. I also certify that no part of my compensation was, is, or will be, directly or indirectly, related to the specific recommendations or views expressed in this report. I and/or my associates have no financial interests in relation to the listed company (ies) covered in this report, and I and/or my associates do not serve as officer(s) of the listed company (ies) covered in this report.

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