CMB International Securities | Equity Research | Company Initiation





iHuman Inc. (IH US)

Let children learn with fun

iHuman is a leading childhood edutainment company in terms of paying users and MAUs. Its online APPs adopt 3D, AI, gamification and interacting features that would differentiate them from competitors. We forecast the Company to post 92% revenue CAGR in FY20-22E, greater than peers' average of 57%. We initiate coverage of iHuman with Buy rating and TP of US\$26.08.

- Leading childhood edutainment player. iHuman provides self-directed learning APPs and learning materials to children aged between 3 and 8. It is one of the most reputable brands in childhood education sector. Its brand recognition can be traced back to 1996 when it introduced Genesis ("升天辟地"), one of the earliest computer-focused educational software in China. The Company was No.1 player in terms of paying users and MAUs among online childhood edutainment providers in China in 1H20 according to F&S.
- Proven and differentiated innovation capabilities. The Company has indepth know-how in content development and application of technologies. It can create products with 3D, AI, gamification and interacting features, which could help it to stand out among peers which mainly offer AI-cartoon based online products. The studio model, a content development team comprised gamification designers and teachers, can share content, technology, design and know-how from the central platform. This allows the Company to replicate its success at product level at scale with consistent high quality.
- Fast-growing childhood edutainment sector. Edutainment products provide interactive entertainment features to drive children's learning interests. COVID-19 pandemic accelerated student migration to online. The sector is estimated to grow at a CAGR of 28.7% from 2019 to 2024. Online childhood edutainment sector is highly fragmented (CR5: 7.6% market share in 2019), which provides room for the Company to gain market share.
- Visionary and dedicated management. Mr. Yunfeng Chi, founder of iHuman and Perfect World (002624CH), is a pioneer and business veteran with 25 years of education experience. He has strong track record of entrepreneurial success in innovation, education and gaming industry.
- Initiate at Buy. We forecast revenue to grow at 92% CAGR in FY20-22E led by growth of online APP and launch of online courses. Such growth rate is stronger than online education peers' average of 57%. We set our TP at US\$26.08, based on 8.5x FY21E P/S, at 30% premium on peers' weighted average of 6.5x. Key risks: (1) paying users below expectation; (2) ramp-up of new business behind expectation; (3) fierce competition.

Earnings Summary

(YE 31 Dec)	FY18A	FY19A	FY20E	FY21E	FY22E
Revenue (RMBmn)	132	219	511	1,063	1,890
YoY growth (%)	NA	66	134	108	78
Net profit (RMBmn)	(18)	(276)	(65)	7	(3)
Adj. NP (RMBmn)	(18)	(5)	15	28	35
Adj. EPADS (RMB)	NA	NA	0.288	0.530	0.643
YoY growth (%)	NA	NA	NA	84	21
Cons. EPADS (RMB)	NA	NA	(1.37)	(0.16)	(0.20)
P/S (x)	57.8	35.6	15.1	6.9	3.9
Adj. P/E (x)	NA	NA	502.4	259.2	213.8
P/B (x)	NA	NA	11.9	11.0	10.6
Net cash (RMB mn)	6	105	780	1,499	1,814

Source: Company data, Bloomberg, CMBIS estimates

BUY (Initiation)

Target Price US\$26.08 Up/Downside +23% Current Price US\$21.15

China Education Sector

Albert Yip

(852) 3900 0838 albertyip@cmbi.com.hk

Hanbo Xu

(852) 3761 8725 xuhanbo@cmbi.com.hk

Stock Data

Mkt Cap (US\$ mn)	1,127
Avg 3 mths t/o (US\$ mn)	NA
52w High/Low (US\$)	31.58/12.12
Total Issued ADS (mn)	53.32
Source: Bloomberg	

Shareholding Structure

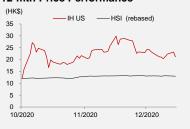
Michael Yufeng, Chi	54.0%
Source: CMBIS	

Share Performance

	Absolute	Relative
1-mth	-18.0%	-17.0%
3-mth	NA	NA
6-mth	NA	NA

Source: Bloomberg

12-mth Price Performance



Source: Bloomberg

Auditor: Ernst & Young Hua Ming



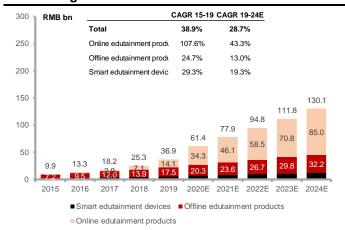
Contents

Section Title: Focus Charts	3
Company Overview	4
Interactive and self-directed learning Apps	
Learning materials and smart learning devices	
Users and customers	
Monetization	10
Competitive Advantages	11
Leading childhood edutainment company in China	11
Proven product and content innovation capabilities	11
Integrated suite of online and offline products and services	12
Scalable business model with highly popular product and service offer	ings12
Visionary and experienced management team	13
Industry Overview	14
China's childhood education market	14
China's content-based complementary childhood education market	14
China's childhood edutainment products market	15
Financial analysis	17
3Q20 results highlight	17
Revenue to grow by 92% CAGR from FY20E to FY22E	18
Valuation	20
Initiate at Buy with TP of US\$26.08	
Financial Summary	



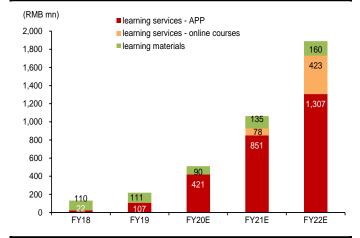
Focus Charts

Figure 1: China's childhood edutainment products market to grow at 28.7% CAGR from 2019-2024E



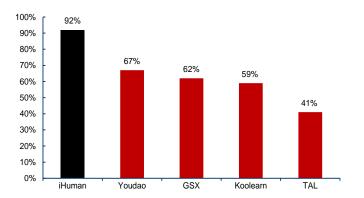
Source: F&S, CMBIS

Figure 3: 92% revenue CAGR in FY20-22E led by APP and online courses



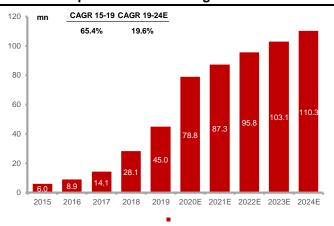
Source: Company data, CMBIS estimates

Figure 5: The Company's 92% revenue CAGR in FY20-22E is the strongest among peers



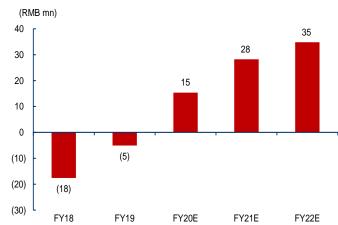
Source: Bloomberg estimates, CMBIS estimates

Figure 2: Paying users of China's online childhood edutainment products market to grow at 19.6% CAGR



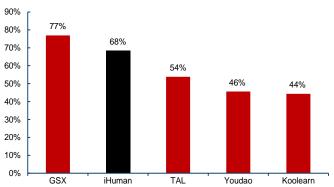
Source: F&S, CMBIS

Figure 4: Maintaining profitable while achieving strong revenue growth



Source: Company data, CMBIS estimates

Figure 6: The Company's GPM in FY20E is ranked second among peers



Source: Bloomberg estimates, CMBIS estimates



Company Overview

The Company is a leading childhood edutainment company in China, with core expertise in providing integrated and innovative products and services catering to the education demands for children mainly aged between three and eight. According to the Frost & Sullivan Report (F&S), the Company was ranked No.1 across each of the following metrics in the first half of 2020:

- No.1 in terms of paying users among online childhood edutainment providers in China: and
- No.1 in terms of MAUs among online childhood edutainment providers in China.

The Company has built a trusted and well recognized brand, as well as a massive and loyal following among families and educators throughout China. Its learning apps have attracted a user base of 10.3mn average total MAUs in the second quarter of 2020.

The Company's line-up of highly effective edutainment products and services include (i) interactive and self-directed learning apps, and (ii) learning materials and smart learning devices

Human English Courses

Literacy and reading Courses

Literacy and reading Courses

Courses

Chinese culture

Thuman Pinyin

Physin

But Particular and Physin

Courses

Courses

Literacy and reading Courses

Chinese culture

Courses

STEM courses

STEM robotics

Figure 7: The integrated suite of childhood edutainment products and services

Source: Company data, CMBIS



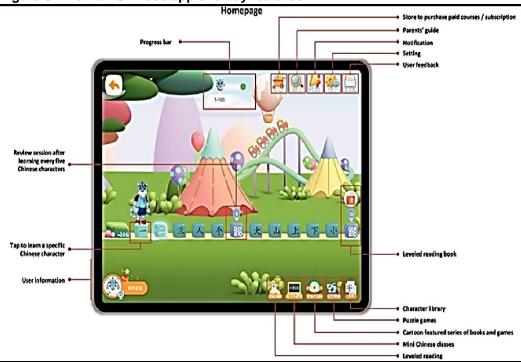
Interactive and self-directed learning Apps

The Company offers the following interactive learning apps catering to the education needs of children mainly aged between three and eight in China. It provides an engaging and effective learning experience to children by integrating solid pedagogy, attractive gamification features and systematic assessment tools into educational content.

1) iHuman Chinese (洪恩识字)

iHuman Chinese, launched in Dec 2016, combines interactive games and activities with Chinese language and literature to help children learn, comprehend and master basic Chinese characters, and has been the Company's most popular learning app. In 1H20, iHuman Chinese was ranked top 1 of the bestselling education apps category of the Apple App Store in China for 181 days among iPad users, and for 79 days among iPhone users. It contributed near 70% of paying users of the Company in 3Q20.

Figure 8: iHuman Chinese app and key features



Source: Company data, CMBIS

iHuman Chinese accounted for over 80% of the total learning services revenues in 2018, 2019 and the six months ended 30 Jun 2020 due to its earlier launch in 2016 and commercialization in 2018. The Company has since expanded its online product portfolio to six learning apps that cover various subject matters, and plans to continue to introduce new online products to diversify monetization channels and drive business growth.

2) iHuman English World (洪恩儿童英语)

iHuman English World creates an immersive 3D English learning environment for young children. It offers a step-by-step English curriculum with 100 learning units designed and organized by level of difficulty. For each learning unit, the app offers a systematic six-step learning cycle, which includes learn, listen, speak, read, spell, and review. The gamification designers have developed over 800 3D learning scenarios. The curriculum is designed by experienced English language teaching experts in the childhood education industry.



Figure 9: iHuman English World app and key features

Homepage

Parental control

Store to purchase paid courses / subscription

User feedback

Progress of learning cycle

Test after learning every three words, one phrase and a song

Tap to view table of content

Source: Company data, CMBIS

Tap to learn a specific word, phrase or song

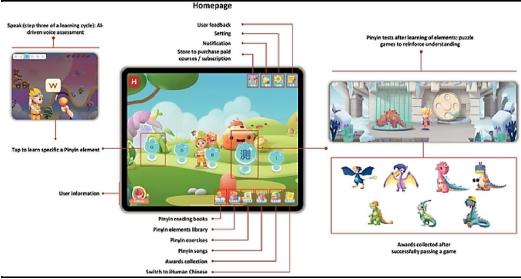
User information

Children can practice their English speaking with AI-based animation characters in a specific section of the app, Dialogue City. The app utilizes AI-driven voice assessment engine tailored to the phonetics of young children to correct their pronunciations. iHuman English World also provides automated learning reports to keep parents informed of their children's learning progress.

3) iHuman Pinyin (洪恩拼音拼读)

iHuman Pinyin provides an interactive environment for children to learn Pinyin, the phonetic system for Chinese characters, and teaches children all 63 elements and over 400 common combinations of such elements. iHuman Pinyin offers over 100 interactive games. The interactive games drive children's engagement and enable them to conduct self-directed learning in an efficient manner.

Figure 10: iHuman Pinyin app and key features



Source: Company data, CMBIS



iHuman Pinyin offers over 100 interactive games. The interactive games drive children's engagement and enable them to conduct self-directed learning in an efficient manner. The Company uses proprietary voice assessment engine to help children learn and practice the correct Pinyin pronunciation effectively. Al technology is deployed in our voice recognition engine tailored to recognize the phonetics of young children and help correct their pronunciations

4) iHuman Magic Math (洪恩数学)

iHuman Magic Math cultivates and improves young children's mathematical thinking skills through a gamified learning process immersed in a magical environment.

Figure 11: iHuman Magic Math app and key features



Source: Company data, CMBIS

The Company has experienced mathematics teachers in the childhood education industry developing a comprehensive age-based curriculum that covers lessons on numbers and quantity, arithmetic, geometry and space, and mathematical thinking. Children may choose to follow a systematic learning path of study, play, drill, assessment and testing.

The gamification designers have designed a virtual mathematics classroom enhanced with gamified magical features, the Wizard's Workshop, that provides over 100 interactive lessons curated to improve young children's mathematical thinking and skills.

5) iHuman Books (洪恩双语绘本)

iHuman Books offers story books for children in English and Chinese with original high-quality illustrations. iHuman Books selects modern and classic stories based on pedagogical principals. iHuman Books offers leveled reading materials to improve children's literacy and reading skills.



Figure 12: iHuman Books app and key features

Switch between leveled reading and story books

Character Franching Southern Whole Stories by topics

The Dronar Age
Accord thes

Northern Franching Montage

Report Franching

Report Franchi

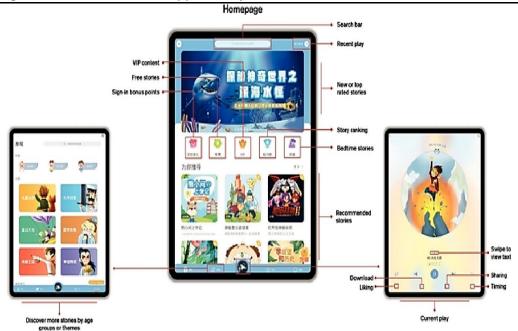
Source: Company data, CMBIS

Leveraging the Company's advanced animation technologies, iHuman Books provides high-quality illustrations through interactive animations, creating an innovative AR reading experience for children which enhances their reading interests.

6) iHuman Stories (洪恩故事)

iHuman Stories has a carefully curated selection of classic and popular bedtime stories for young children. The stories are narrated in both Chinese and English to offer a bilingual environment to young children. iHuman Stories employs advanced data analysis technologies to recommend stories based on children's age and preferences.

Figure 13: iHuman Stories app and key features



Source: Company data, CMBIS



Learning materials and smart learning devices

The Company develops learning materials, including books, digital media, and teaching tools for children. Its learning materials cover diverse subjects including literacy and reading, English, STEM, Chinese learning, music, painting and physical education.

The Company offers smart learning devices including smart reading pens, building blocks and learning consoles. The smart reading pens are designed to be used with the Company's reading materials for children. When the reading pen is placed on a specific sentence in the book, it will automatically read out the sentence.

Figure 14: Smart reading pen



Source: Company data, CMBIS

The Company offers various sets of building blocks embedded with processing chips for children to build robotic toys that help children to understand basic science concepts. The building blocks stimulate children's hands-on capabilities and inspire their interests in science through a playful learning experience.

The Company also provides learning consoles, such as learning cards for various subjects. For example, learning cards illustrating Chinese characters and their use in sentences and phrases for children to fully comprehend newly learnt characters.

Users and customers

The Company's users are primarily children aged between three and eight, with parents who seek quality childhood educational resources for their children. These parents are generally of the young generation born in 1980s and 1990s, who are more tech savvy.

The Company's average total MAUs grew from 1.4mn in 2018 to 3.7mn in 2019 and from 3.2mn in 1H19 to 9.3mn in 1H20. The number of paying users who paid subscriptions for the premium content on the Company's apps increased from 0.5mn in 2018 to 1.3mn in 2019, and increased from 0.6mn in 1H19 to 2.1mn in 1H20.

The Company intends to expand the demographic coverage of its learning apps to elder children groups, particularly those aged between eight and twelve, in order to increase user lifetime value.



As of June 30, 2020, the Company has sold its learning materials and smart learning devices to kindergartens and other education organizations covering approximately 380 cities in 30 provinces or municipalities in China.

Monetization

The Company mainly generates revenues from the subscription fees that users paid for the premium content of its online learning apps, as well as the sales of learning materials and smart learning devices to both individual users and education organizations.

The Company attracts users with free content on its learning apps and convert them into paying users. For all learning apps, users can use beginner-level content for free but would need to pay subscription fees to use premium content. The Company offers time-based subscription packages for the premium content that range from one month to twelve months for various learning apps.

For apps offered in China, one-month subscription packages are priced between RMB 18 and RMB 48, three-month subscription packages are priced between RMB 48 and RMB 68, and twelve-month subscription packages are priced between RMB 108 and RMB 348. For apps offered overseas, the prices of subscription packages are generally higher.

The Company also offers content-based subscription packages on some of its products such as iHuman Chinese and iHuman Books. Through such subscription, users can select specific packages comprising premium content for an indefinite term, without subscribing for time-based packages. The content-based subscription fees range from RMB128 to RMB388.



Competitive Advantages

Leading childhood edutainment company in China

According to F&S, the Company is a leading childhood edutainment company in China, across each of the following metrics in the first half of 2020: 1) No. 1 in terms of paying users among online childhood edutainment providers in China; and 2) No. 1 in terms of MAUs among online childhood edutainment providers in China.

iHuman ("洪恩") is one of the most reputable brands in the childhood education industry in China. Since the introduction of its first product Genesis ("开天辟地"), which was one of the earliest computer-focused educational software in China, in 1996, Hongen Education has enjoyed wide and long-lasting brand recognition among families and educators. The brand has become the go-to choice for parents seeking quality childhood educational resources.

The Company's products have won accolades from leading mobile app stores, such as Apple, Huawei and Tencent. In 2018, its apps were named as one of the Best Apps of the Year ("年度精选 App") by the Apple App Store, and, in 2019, its apps were named as the Premium Education App of the Year ("年度优秀教育应用") from Huawei AppGallery and as the Best New App ("新锐应用奖") by Tencent Appstore.

Proven product and content innovation capabilities

The Company's business model is product-centric and innovation-driven. Compared with the sales-driven business model, it takes pride in its long-standing focus on and excellence in innovative product development and original content creation.

The Company has a proven track record of pioneering innovative and high-quality product and service offerings. Its products cover literacy and reading, English, mathematics and critical thinking, Chinese learning, music and painting. Individual users and education organizations can access educational content through online learning apps, teaching materials and courses (both physical and digital), teaching tools, audio books and smart reading pens.

The Company's industry-leading product innovation capabilities stem from its in-depth know-how in content development and expertise in applying advanced technologies. It currently has a talented R&D team of over 400 professionals.

The Company infuses its content with solid pedagogy and elements of fun. Its product development personnel are organized into studios that function as creative hubs. Each hub is staffed with dedicated teams of gamification designers and professional teachers. This studio model allows the Company to replicate its success at scale, with consistent high quality. The Company also selectively collaborates with leading global learning content providers to jointly develop educational materials.

The Company also empowers its content with application of advanced technologies such as game technologies, Al technologies, and big data analysis.

Game technologies. According to F&S, the Company was among the first in the education sector in China to apply sophisticated game engines to the design of online education products. Its proprietary game technologies enable its products to offer a uniquely interactive and entertaining experience, inspiring children's learning interests and driving their engagement. According to F&S, the Company is among the first movers



in China to heavily apply 3D technology in the design of online learning apps, to deliver more vivid images, better learning experience and cultivate the aesthetic sense of young children.

Al technologies. Al technologies power various teaching and voice assessment tools featured in the Company's learning apps, which significantly improve learning effectiveness for children. For example, it developed its Al-driven voice assessment technology that is tailored to the phonetics of young children and that can tone up incorrect pronunciations, which demands a significantly higher level of accuracy than the voice recognition tools embedded in learning products commonly available on the market.

Big data analysis. Leveraging advanced big data algorithms and massive user base, the Company is able to consistently and effectively upgrade its products and improve its intelligent content recommendation for users, thus continually enhancing user experience.

Integrated suite of online and offline products and services

The Company offers users an integrated suite of childhood edutainment products and services that cover children's educational needs in both online and offline scenarios and capture both block and fragmented use time, thereby maximizing monetization potential.

The integrated nature of its product and service creates significant synergies across various aspects of the Company's business operations. In terms of content development, such strategy allows overall product planning and resources allocation for both online and offline businesses. The integrated product strategy also allows packaged products for similar group of users. In terms of sales and marketing, such strategy organically directs user traffic between online and offline businesses, whereby effectively leverages offline sales network to promote online products.

Scalable business model with highly popular product and service offerings

The Company's business model has effectively lowered its marginal R&D costs, allowing it to invest in new content, technology and products in a scalable manner. The extensive user traffic further deepens its data insights, improving operational efficiencies and user experience.

The Company has amassed a large user base mainly through word-of-mouth referrals among users. In 2019, it received the recognitions of being the Best Solution Provider in the China Service Industry ("年度中国服务行业最佳解决方案"), according to the China Association of Trade in Services, and of being the Star in Information Industry Innovative Development ("年度信息产业创新发展明星"), according to the China Information Industry Trade Association. In the first half of 2020, iHuman Chinese was ranked top 1 of the bestselling education apps category of the Apple App Store in China for 181 days among iPad users, and for 79 days among iPhone users.

The Company adopted an integrated approach in growing and managing its product and service offerings, which results in significant economies of scale and maximizing its monetization potential. Such integrated approach has effectively lowered marginal R&D costs, allowing the Company to invest in new edutainment content, technology and products in a scalable manner.

The Company's core technology and content development capabilities support the full range of its product and service offerings, and the extensive user traffic further deepens its data insights, improving operational efficiencies and user experience.



The Company has built a powerful and centralized reservoir of know-how spanning across fields such as gamification, Al technology, art design and product development that can be widely applied to the rapid development of new products and services.

The Company's various studios can easily overlay their pedagogic insights, subject matter knowledge and creative process onto central platform to create new units of learning content that can be deployed and replicated at scale.

Visionary and experienced management team

The Company has a visionary management team with a proven track record of entrepreneurial success, as well as decades-long passion for education and innovation.

Mr. Michael Yufeng Chi, the founder and chairman as well as the founder and chairman of the Perfect World Group, is a pioneer and renowned businessman with over 25 years of experience and profound industry insights. Mr. Chi also established the Perfect World Group in 2004, a leading global entertainment company focusing on content creation and technology.

Mr. Peng Dai, the Company's CEO, has extensive experience in technology, operations and strategy, having served in leadership positions of both multinational conglomerate and international management consulting firm, such as Lenovo and Boston Consulting Group. Other members of senior management team also have rich and complementary experiences.



Industry Overview

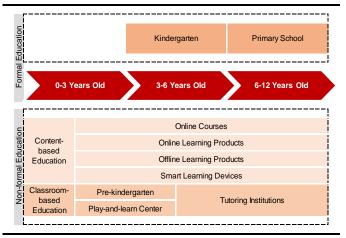
China's childhood education market

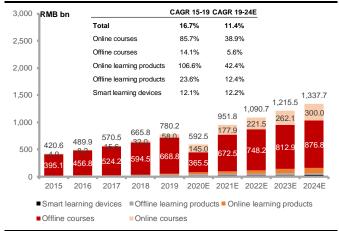
According to F&S, China's childhood education market refers to education provided to children aged between 0 and 12 years old. The market consists of formal childhood education and non-formal childhood education, also known as complementary childhood education.

Formal childhood education refers to education at kindergartens and primary schools. Complementary childhood education consists of both classroom-based education provided by offline pre-kindergartens and after-school learning centers, as well as content-based education delivered through online courses, online learning products, offline learning products and smart learning devices.

Figure 15: China's childhood education market Figure 16: Revenue of China's complementary

Figure 16: Revenue of China's complementary childhood education market to grow at 11.4% CAGR from 2019 to 2024





Source: F&S, CMBIS Source: F&S, CMBIS

Driven by large and stable children population, higher disposable income and increasing focus on education, and fierce competition for admission into top schools, total revenue of China's complementary childhood education market has grown rapidly from RMB 420.6bn in 2015 to RMB 780.2bn in 2019, representing a CAGR of 16.7%, and is expected to further increase to RMB 1,337.7bn in 2024, representing a CAGR of 11.4%.

Total revenue of China's complementary childhood education market is expected to decrease to RMB 592.5bn in 2020, primarily due to the COVID-19 outbreak, which caused many after-school learning centers to remain closed for an extended period. Growth is expected to resume in 2021.

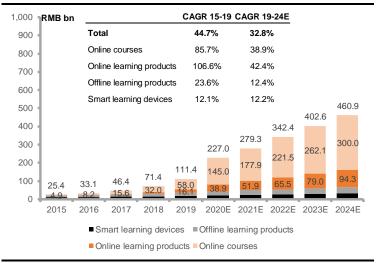
China's content-based complementary childhood education market

China's content-based complementary childhood education, which delivers childhood education via online courses, online learning products, offline learning products and smart learning devices, has emerged as an increasingly popular approach to address the demand for flexible and interactive learning experience for childhood education.

The consumption of content-based complementary childhood education generally has the characteristics of high intensity, high frequency and diversified needs in terms of channels, content and formats.



Figure 17: Revenue of China's content-based complementary childhood education market to grow at 32.8% CAGR from 2019 to 2024



Source: F&S, CMBIS

Driven by continuous economic development and urbanization, fierce competition to gain admission into top schools, prevalence of mobile internet, technological advancements improving learning experience, and favorable government policies, total revenue of China's content-based complementary childhood education market has grown rapidly from RMB 25.4bn in 2015 to RMB 111.4bn in 2019, representing a CAGR of 44.7%, and is expected to increase to RMB 460.9bn in 2024, representing a CAGR of 32.8%.

Due to the impact of the COVID-19 pandemic, kindergartens, primary schools and offline learning centers in China were closed for most of the first half of 2020, which led to a rapid increase in the demand for content-based complementary childhood education, especially online courses and products. As students further migrate from offline to online, it is expected that the penetration rate of China's content-based complementary childhood education will continue to increase from 14.3% in 2019 to 34.5% in 2024.

China's childhood edutainment products market

Childhood edutainment products refer to educational products providing content with interactive entertainment features, which inspire children's learning interests and drive their engagement. The products primarily consist of:

Online edutainment products: are edutainment resources enabled by Al-oriented content or mobile apps, mini programs, or software that integrate cartoons, games, songs, and other features with education.

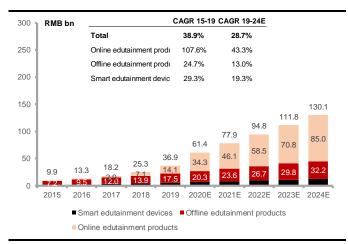
Offline edutainment products: are edutainment materials such as story books, picture books, drawing books, audio books and knowledge cards.

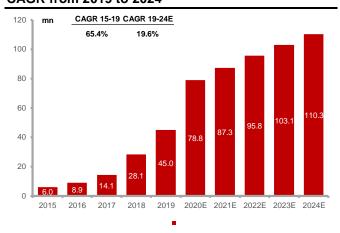
Smart edutainment devices: are learning devices designed for edutainment purpose, such as reading pens, storytellers.



Figure 18: China's childhood edutainment products market to grow at 28.7% CAGR from 2019 to 2024

Figure 19: Paying users of China's online childhood edutainment products market to grow at 19.6% CAGR from 2019 to 2024





Source: F&S, CMBIS Source: F&S, CMBIS

Total revenue of China's childhood edutainment products market has grown from RMB 9.9bn in 2015 to RMB 36.9bn in 2019, representing a CAGR of 38.9%, and is expected to further increase to RMB 130.1bn in 2024, representing a CAGR of 28.7%. The penetration rate has also increased from 48.2% in 2015 to 69.1% in 2019, and is expected to further increase to 80.8% in 2024.

Number of paying users of China's online childhood edutainment products market has increased rapidly from 6.0mn in 2015 to 45.0mn in 2019, representing a CAGR of 65.4%, and is expected to further increase to 110.3mn in 2024, representing a CAGR of 19.6%.

China's integrated online-and-offline childhood edutainment products market is highly fragmented, with the top three players having only 1.6% of the market share in 2019. China's online childhood edutainment products market is also highly fragmented, with the top five players having 7.6% market share in 2019. Major online childhood edutainment products providers primarily offer interactive learning apps, most of which are Al-cartoon based online products.

Figure 20: Competitive landscape of China's childhood edutainment products market

			Key pr	oducts						
Company	World recognition	Maths	Bilingual pic book	Story-telling	Pinyin and spelling	English	3D function	Al function	Al function Gamification In	Interactivity
	✓	✓	✓	✓	✓	✓	✓	✓	High	High
ihuman	The state of the s									
Company A	Х	Х	Х	✓	Х	Х	Х	✓	Low	Low
Company B	✓	✓	Х	Х	✓	✓	X	Х	Medium	Low
Company C	Х	Х	Х	Х	Х	✓	Х	✓	High	High
Company D	✓	✓	Х	Х	✓	✓	Х	Х	High	High
Company E	✓	✓	Х	Х	Х	✓	Х	Х	High	Medium

Source: F&S, Company data, CMBIS



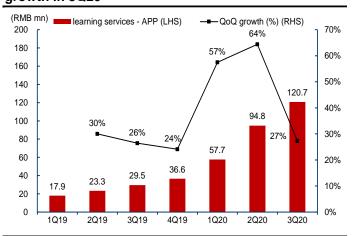
Financial analysis

3Q20 results highlight

Total revenue jumped 141% YoY to RMB157mn in 3Q20, led by 309% growth of learning services revenue to RMB121mn. In 3Q20, average total MAU increased 187% to YoY 11.1mn. Number of paying users surged 164% YoY to 1.37mn. Learning services revenue reported 27% QoQ growth in 3Q20, led by price hikes in APPs and 1% QoQ growth of paying users.

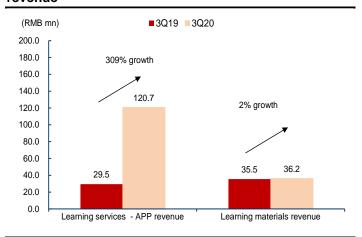
GPM widened 4.6ppt to 68.5% led by increased revenue mix of learning services, which have higher GPM than learning materials. EBIT margin expanded 4.9ppt to 8.6%. While R&D expenses ratio narrowed 4.9ppt to 35.6%, selling expenses ratio and administrative expenses ratio increased 2.8ppt and 1.8ppt to 14.5% and 9.8%, respectively. The Company strengthened marketing efforts to push user growth and increased spending in professional fees. NP soared 303% to RMB11mn.

Figure 21: 27% QoQ learning services - APP revenue growth in 3Q20



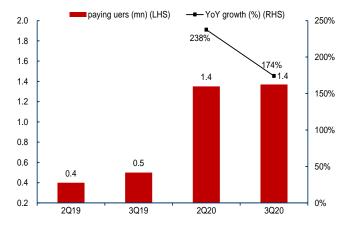
Source: Company data, CMBIS

Figure 22: 3Q20 YoY revenue growth led by APP revenue



Source: Company data, CMBIS

Figure 23: Paying users of APP jumped 174% YoY in 3Q20

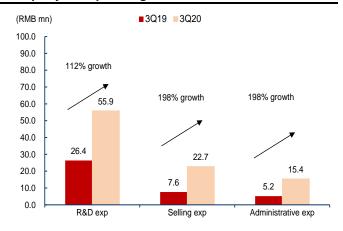


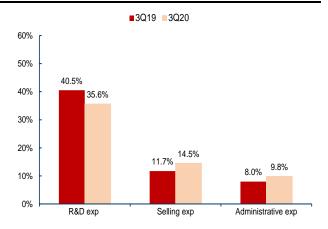
Source: Company data, CMBIS



Figure 24: Operating expenses jumped as the Company is expanding its businesses

Figure 25: R&D expense ratio declined YoY in 3Q20 on operating leverage





Source: Company data, CMBIS

Source: Company data, CMBIS

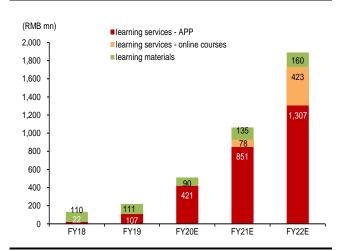
Revenue to grow by 92% CAGR from FY20E to FY22E

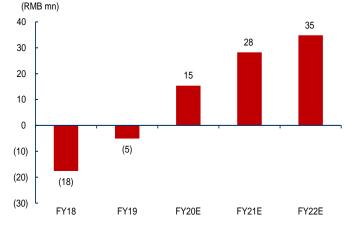
We think there are four growth drivers of revenue in FY20-22E: (1) Online APP: Continuing growth of paying users and higher ARPU from price hike and product upgrades; (2) a new APP regarding cooperation with a renowned global publisher to be launched in 1H21E; (3) online education courses to be launched in 1H21E; and (4) continuing growth of learning materials and devices segment.

Though we forecast a strong growth of revenue, we expect the Company to increase investment in selling expenses to promote its APPs and new businesses to gain market share in the fragmented market. We estimate adj. NP to increase at 51% CAGR from RMB15mn in FY20E to RMB35mn in FY22E.

Figure 26: 92% revenue CAGR in FY20-22E led by APP and online courses

Figure 27: Maintaining profitable while achieving strong revenue growth



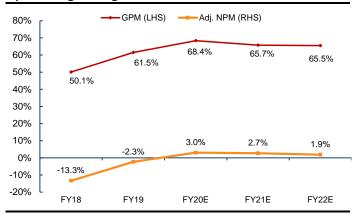


Source: Company data, CMBIS estimates

Source: Company data, CMBIS estimates



Figure 22: Most of increased gross profit will be spent on growing the business



Source: Company data, CMBIS

Figure 23: CMBIS estimates vs consensus

		CMBIS			Consensus		Diff (%)			
US\$ mn	FY20E	FY21E	FY22E	FY20E	FY21E	FY22E	FY20E	FY21E	FY22E	
Revenue	511	1,063	1,890	482	1,133	1,973	6%	-6%	-4%	
Gross Profit	349	699	1,238	na	na	na	na	na	na	
Operating Profit	(58)	15	6	(78)	(40)	(41)	-26%	-139%	-114%	
Adj. Net Profit	15	28	35	24	31	37	-35%	-9%	-4%	
Gross Margin	68.4%	65.7%	65.5%	na	na	na	na	na	na	
Operating Margin	-11.3%	1.4%	0.3%	-16.2%	-3.5%	-2.1%	+4.9ppt	+4.9ppt	+2.4ppt	
Adj. Net Margin	3.0%	2.7%	1.9%	4.9%	2.8%	1.8%	-1.9ppt	-0.1ppt	+0.1ppt	

Source: Bloomberg estimates, CMBIS estimates



Valuation

Initiate at Buy with TP of US\$26.08

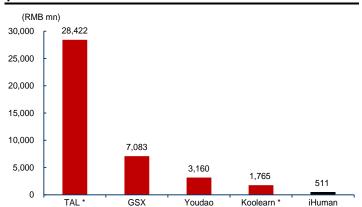
We compare the Company to other online education companies such as TAL, Koolearn, GSX and Youdao to derive its valuation, because its closest online APP peers like Kaishu, Maitian, Wukong etc are unlisted companies.

TAL, GSX and Koolearn are K12 after school tutoring services providers. TAL is the largest player with both online and offline exposure. GSX and Koolearn focus on online courses. Youdao provides learning content, applications and solutions to users of all ages. Its K12 online course has become the fastest growth driver and the major business segment in 2020.

Driven by strong growth of online APP segment and the launch of online course in 1H21E, we estimate the Company to deliver 92% revenue CAGR from FY20-22E. Such growth rate is stronger than peers' average of 57%.

In terms of revenue, TAL is the biggest among online peers with its RMB28.4bn revenue in financial year ended 28 Feb 2021E. GSX ranks second followed by Youdao. Koolearn is estimated to record 63% revenue growth to RMB1.7bn in financial year ended 31 May 2021E. iHuman is the smallest one but it could achieve 134% revenue growth in FY20E.

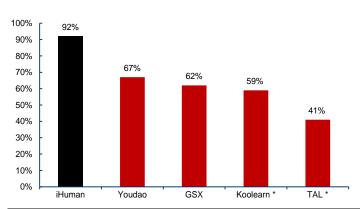
Figure 30: The Company's revenue is the least among peers in FY20E



Source: Bloomberg estimates, CMBIS estimates

*FY21E estimates

Figure 31: The Company's 92% revenue CAGR in FY20-22E is the strongest among peers



Source: Bloomberg estimates, CMBIS estimates

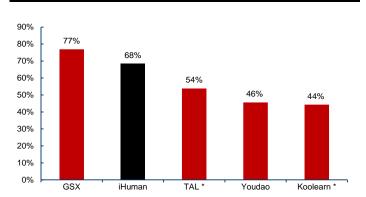
FY21-23E estimates

In terms of GPM, GSX is the highest among online peers with 77% in FY20E due to its large scale online large class business. iHuman ranked second because of its high GPM online APP business (74.0% in FY20E). TAL's 54% GPM ranks the third and is higher than Youdao's 46%. Youdao's online marketing business contributed 35% of revenue in FY19 and this segment's GPM was low at 31%. Koolearn has the lowest GPM because its online K12 education segment was still at gross loss in the previous financial year.

In terms of adjusted NPM, TAL is estimated to achieve 7.7% NPM in financial year ended 28 Feb 2021. We estimate iHuman to have 3.0% NPM in FY20E. GSX, Koolearn and Youdao will have net loss because of intensifying competition (advertisement in drawing traffic) in online K12 education segment.



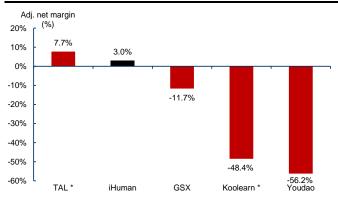
Figure 32: The Company's GPM in FY20E is ranked second among peers



Source: Bloomberg estimates, CMBIS estimates

*FY21E estimates

Figure 33: We expect the Company could be profitable in FY20E



Source: Bloomberg estimates, CMBIS estimates

*FY21E estimates

The sector trades at 6.5x weighted average FY21E P/S. The Company is a leader in fast-growing online edutainment segment, which is less competitive than online K12 education. Its adjusted NPM ranks second among peers. Given its strong revenue growth outlook (92% CAGR in FY20-22E vs peers' average of 57%), we think the Company is deserved to trade at a premium P/S valuation to peers. We set our TP at US\$26.08, based on 8.5x FY21E P/S, which is at 30% premium on peers' weighted average of 6.5x.

Figure 34: Peers valuation table

Online education services iHuman TAL Education Koolearn GSX Youdao Average	Ticker s providers iH US TAL US 1797 HK GSX US DAO US		1,127 41,357 3,256	21.15 68.89	end Dec-19	FY1 502.4	P/E (x FY2	FY3	FY1	P/S (x) FY2	FY3	Adj. EF FY1	FY2	FY3	FY1	rue grov FY2	FY3	FY1-3 CAGE
iHuman TAL Education Koolearn GSX Youdao Average	TAL US 1797 HK GSX US	Buy NR NR NR	41,357 3,256	68.89	Dec-19	502.4	250.2											
TAL Education Koolearn GSX Youdao Average	TAL US 1797 HK GSX US	NR NR NR	41,357 3,256	68.89	Dec-19	502.4	250.2											
Koolearn GSX Youdao Average	1797 HK GSX US	NR NR	3,256				259.2	213.8	15.1	6.9	3.9	na	84	21	134	108	78	92%
Koolearn GSX Youdao Average	1797 HK GSX US	NR NR	3,256															
GSX Youdao Average	GSX US	NR				128.3	61.7	35.2	9.5	6.6	4.8	5,270	108	75	29	44	38	41%
Youdao Average				26.85	May-20	na	na	na	12.8	7.5	4.8	8	(31)	(71)	63	60	57	59%
Average	DAO US	NR	12,663	53.06	Dec-19	na	na	333.3	12.4	6.5	4.4	(148)	(34)	(139)	233	79	47	62%
•			2,888	25.84	Dec-19	na	na	na	6.3	3.2	2.1	(68)	(10)	(53)	141	84	52	67%
						128.3	61.7	184.3	10.3	6.0	4.0	1,266	8	(47)	117	67	49	57%
Weighted average						128.3	61.7	105.1	10.1	6.5	4.6							
K12 after school tutoring	services pr	ovider	s															
New Oriental Education	EDU US	NR	28,711	170.00	May-20	46.0	32.9	24.9	6.9	5.2	4.1	22	40	32	17	32	26	29%
New Oriental Education	9901 HK	NR	28,931	1328.00	May-20	48.2	36.4	28.6	6.6	5.0	4.1	31	32	27	22	32	23	27%
Koolearn	1797 HK	NR	3,256	26.85	May-20	na	na	na	12.8	7.5	4.8	8	(31)	(71)	63	60	57	59%
TAL Education	TAL US	NR	41,357	68.89	Feb-20	128.3	61.7	35.2	9.5	6.6	4.8	5,270	108	75	29	44	38	41%
GSX	GSX US	NR	12,663	53.06	Dec-19	na	na	333.3	12.4	6.5	4.4	(148)	(34)	(139)	233	79	47	62%
Onesmart Education	ONE US	NR	586	3.64	Aug-19	na	17.9	9.7	1.2	0.8	0.7	(246)	na	84	(15)	38	20	29%
Scholar Education	1769 HK	NR	950	13.26	Dec-19	36.7	24.9	18.3	7.1	4.7	3.4	11	48	36	29	43	37	40%
Beststudy Education	3978 HK	Buv	309	2.82	Dec-19	14.9	9.6	7.7	1.2	0.9	0.7	(14)	55	25	(2)	30	20	25%
Average						54.8	30.6	65.4	7.2	4.7	3.4	617	31	9	47	45	33	39%
Weighted average						80.4	40.4	63.8	8.5	5.8	4.4							
N																		
Non-formal vocational ed China East Education	ucation ser 667 HK	Vices p Buy	4.703	16.62	Dec-19	56.3	27.4	22.9	9.1	6.4	5.5	(36)	106	19	(9)	35	15	24%
China East Education	007 FIN	Биу	4,703	10.02	Dec-19	56.5	27.4	22.9	9.1	0.4	5.5	(36)	106	19	(9)	33	15	24%
K12 education services p	roviders																	
Tianli Education	1773 HK	NR	2,074	7.75	Dec-19	35.4	25.9	18.6	11.7	7.8	5.8	47	37	40	34	41	34	37%
Wisdom Education	6068 HK	Buy	1,101	3.92	Aug-19	13.8	12.0	10.3	4.3	3.0	2.6	46	16	16	7	31	16	23%
Maple Leaf	1317 HK	NR	796	2.06	Aug-19	8.4	7.3	6.6	3.6	2.4	2.2	(6)	15	10	(3)	39	11	24%
Virscend Education	1565 HK	NR	932	2.34	Dec-19	16.5	11.8	9.0	3.6	2.7	2.2	(9)	39	32	21	25	21	23%
Bright Scholar	BEDU US	NR	722	6.00	Aug-19	14.5	11.8	9.1	1.5	1.2	1.0	(13)	52	29	31	15	17	16%
Average						17.7	13.7	10.7	4.9	3.4	2.8	13	32	25	18	30	20	25%
Weighted average						21.5	16.4	12.5	6.4	4.4	3.5							
Higher Education services	s providers																	
China Education	839 HK	NR	4,183	15.08	Aug-19	28.1	20.8	16.9	10.8	7.3	6.1	32	26	23	37	39	19	29%
Yuhua Education	6169 HK	NR	2,925	6.79	Aug-19		15.0	13.0	8.4	6.9	6.2	28	22	15	41	14	10	12%
Hope Education	1765 HK	Buy	2,006	2.15	Aug-19		16.0	12.2	8.9	5.3	4.2	na	46	31	na	57	25	40%
Kepei Education	1890 HK	NR	1,308	5.03	Dec-19		11.0	9.5	10.0	6.9	6.0	33	27	16	26	37	16	26%
Cahtay Media	1981 HK	NR	1,199	5.60	Dec-19		17.3	13.8	10.4	6.9	5.6	(7)	49	25	7	42	22	32%
Edvantage	382 HK	NR	1,109	8.44	Aug-19		17.7	13.0	9.6	6.5	5.0	0	32	36	14	39	30	34%
New Higher Education	2001 HK	NR	978	4.78	Dec-19	na	10.6	7.8	na	na	na	na	na	37	na	na	na	na
Minsheng Education	1569 HK	NR	582	1.07	Dec-19	10.8	7.4	6.7	3.5	2.8	2.6	(14)	46	9	16	14	10	12%
Xinhua Education	2779 HK	Buv	506	2.44	Dec-19	10.3	9.2	8.5	7.0	5.7	5.2	13	12	9	14	16	9	13%
Huali University	1756 HK	NR	429	2.77	Aug-19	9.2	6.7	5.5	3.9	3.0	2.6	41	17	23	13	21	18	19%
Neusoft Education	9616 HK	NR	418	4.86	Dec-19	15.7	11.8	9.3	2.2	1.7	1.4	na	33	26	21	23	19	21%
Average					10	17.6	13.1	10.6	7.5	5.3	4.5	16	31	23	21	30	18	24%
Weighted average						22.2	15.7	12.7	9.0	6.3	5.3							

Source: Bloomberg estimates, CMBIS estimates



Financial Summary

Income statement						Cash flow summary					
YE 31 Dec (RMB mn)	FY18A	FY19A	FY20E	FY21E	FY22E	YE 31 Dec (RMB mn)	FY18A	FY19A	FY20E	FY21E	FY22E
Revenue	132	219	511	1,063	1,890	Profit before tax	(18)	(276)	(65)	7	(3)
Learning services	22	107	421	928	1,730	Share-based compensation	0	271	80	21	38
Learning materials	110	111	90	135	160	D&A	0	1	7	6	7
Cost of sales	(66)	(84)	(162)	(364)	(652)	Change in working capital	13	47	18	694	282
Gross profit	66	134	349	699	1,238	Others	0	0	(6)	(6)	(7)
						Net cash fr. operating act.	(5)	43	34	722	317
R&D expenses	(52)	(170)	(199)	(330)	(472)						
Selling expenses	(22)	(54)	(79)	(255)	(614)	Capex	(1)	(2)	(4)	(3)	(3)
Administrative expenses	(14)	(189)	(129)	(99)	(146)	Interest received	0	0	1	5	7
EBIT	(22)	(279)	(58)	15	6	Net cash fr. investing act.	(1)	(2)	(2)	2	4
Finance income, net	0	0	(3)	1	3	Equity raised	0	123	648	0	0
Other income, net	6	5	1	1	1	Interest paid	0	0	(4)	(4)	(4)
Profit before tax	(16)	(274)	(59)	17	9	Distribution to Hongen	(11)	(3)	0	0	0
Income tax	(2)	(1)	(5)	(10)	(12)	Others	21	(62)	(2)	(2)	(2)
Net profit	(18)	(276)	(65)	7	(3)	Net cash fr. financing act.	10	59	643	(5)	(5)
Adj. net profit	(18)	(5)	15	28	35						
						Net change in cash	5	99	675	719	316
						Cash at the beginning of the year	1	6	105	780	1,499
						Exchange difference	0	0	0	0	0
						Cash at the end of the year	6	105	780	1,499	1,814

Balance sheet						Key ratios					
YE 31 Dec (RMB mn)	FY18A	FY19A	FY20E	FY21E	FY22E	YE 31 Dec	FY18A	FY19A	FY20E	FY21E	FY22E
Non-current assets	1	5	29	33	34	Sales mix (%)					
PPE	1	2	5	7	8	Learning services	16.7	49.1	82.4	87.3	91.5
ROU assets	0	0	13	15	15	Learning materials	83.3	50.9	17.6	12.7	8.5
Intangible assets	0	0	8	8	8	Total	100.0	100.0	100.0	100.0	100.0
Other non-current assets	0	3	3	3	3						
						P&L ratios (%)					
Current assets	57	163	883	1,703	2,162	Gross margin	50.1	61.5	68.4	65.7	65.5
Inventories	30	21	17	25	30	EBIT margin	(16.7)	(127.5)	(11.3)	1.4	0.3
Account receivables	14	20	47	98	174	Net margin	(13.3)	(126.0)	(12.7)	0.7	(0.1)
Prepayments	8	17	39	81	144	Adj. net margin	(13.3)	(2.3)	3.0	2.7	1.9
Cash	6	105	780	1,499	1,814						
						Balance sheet ratios					
Current liabilities	122	183	256	1,050	1,474	Current ratio (x)	0.5	0.9	3.4	1.6	1.5
Account payables	13	10	20	45	80	Quick ratio (x)	0.2	0.8	3.4	1.6	1.4
Deferred revenue	28	72	142	850	1,119	A/C receivables days	NA	28	24	25	26
Other payables	81	101	89	150	270	A/C payables days	NA	51	34	32	35
Others	0	0	5	5	5	Inventory turnover days	NA	109	42	21	15
						Net cash (RMB mn)	6	105	780	1,499	1,814
Non-current liabilities	0	0	6	8	9						
Operating leases	0	0	6	8	9	Returns (%)					
						Adj. ROAE	NA	NA	4.8	4.3	5.0
Total net assets	(64)	(14)	649	678	713	Adj. ROAA	NA	(4.5)	2.8	2.2	1.8
Shareholders' equity	(64)	(14)	649	678	713						
						Per share					
						Adj. EPADS (RMB)	NA	NA	0.29	0.53	0.64
						DPADS (RMB)	0.00	0.00	0.00	0.00	0.00
						BVPADS (RMB)	NA	NA	12.18	12.52	12.98

Source: Company data, CMBIS estimates



Disclosures & Disclaimers

Analyst Certification

The research analyst who is primary responsible for the content of this research report, in whole or in part, certifies that with respect to the securities or issuer that the analyst covered in this report: (1) all of the views expressed accurately reflect his or her personal views about the subject securities or issuer; and (2) no part of his or her compensation was, is, or will be, directly or indirectly, related to the specific views expressed by that analyst in this report.

Besides, the analyst confirms that neither the analyst nor his/her associates (as defined in the code of conduct issued by The Hong Kong Securities and Futures Commission) (1) have dealt in or traded in the stock(s) covered in this research report within 30 calendar days prior to the date of issue of this report; (2) will deal in or trade in the stock(s) covered in this research report 3 business days after the date of issue of this report; (3) serve as an officer of any of the Hong Kong listed companies covered in this report; and (4) have any financial interests in the Hong Kong listed companies covered in this report.

Disclosure

CMBIS or its affiliate(s) have investment banking relationship with the issuers covered in this report in preceding 12 months.

CMBIS Ratings

BUY
Stock with potential return of over 15% over next 12 months
SELL
Stock with potential return of +15% to -10% over next 12 months
SELL
Stock with potential loss of over 10% over next 12 months

NOT RATED : Stock is not rated by CMBIS

OUTPERFORM : Industry expected to outperform the relevant broad market benchmark over next 12 months

MARKET-PERFORM : Industry expected to perform in-line with the relevant broad market benchmark over next 12 months

UNDERPERFORM : Industry expected to underperform the relevant broad market benchmark over next 12 months

CMB International Securities Limited

Address: 45/F, Champion Tower, 3 Garden Road, Hong Kong, Tel: (852) 3900 0888 Fax: (852) 3900 0800

CMB International Securities Limited ("CMBIS") is a wholly owned subsidiary of CMB International Capital Corporation Limited (a wholly owned subsidiary of China Merchants Bank)

Important Disclosures

There are risks involved in transacting in any securities. The information contained in this report may not be suitable for the purposes of all investors. CMBIS does not provide individually tailored investment advice. This report has been prepared without regard to the individual investment objectives, financial position or special requirements. Past performance has no indication of future performance, and actual events may differ materially from that which is contained in the report. The value of, and returns from, any investments are uncertain and are not guaranteed and may fluctuate as a result of their dependence on the performance of underlying assets or other variable market factors. CMBIS recommends that investors should independently evaluate particular investments and strategies, and encourages investors to consult with a professional financial advisor in order to make their own investment decisions.

This report or any information contained herein, have been prepared by the CMBIS, solely for the purpose of supplying information to the clients of CMBIS or its affiliate(s) to whom it is distributed. This report is not and should not be construed as an offer or solicitation to buy or sell any security or any interest in securities or enter into any transaction. Neither CMBIS nor any of its affiliates, shareholders, agents, consultants, directors, officers or employees shall be liable for any loss, damage or expense whatsoever, whether direct or consequential, incurred in relying on the information contained in this report. Anyone making use of the information contained in this report does so entirely at their own risk.

The information and contents contained in this report are based on the analyses and interpretations of information believed to be publicly available and reliable. CMBIS has exerted every effort in its capacity to ensure, but not to guarantee, their accuracy, completeness, timeliness or correctness. CMBIS provides the information, advices and forecasts on an "AS IS" basis. The information and contents are subject to change without notice. CMBIS may issue other publications having information and/ or conclusions different from this report. These publications reflect different assumption, point-of-view and analytical methods when compiling. CMBIS may make investment decisions or take proprietary positions that are inconsistent with the recommendations or views in this report.

CMBIS may have a position, make markets or act as principal or engage in transactions in securities of companies referred to in this report for itself and/or on behalf of its clients from time to time. Investors should assume that CMBIS does or seeks to have investment banking or other business relationships with the companies in this report. As a result, recipients should be aware that CMBIS may have a conflict of interest that could affect the objectivity of this report and CMBIS will not assume any responsibility in respect thereof. This report is for the use of intended recipients only and this publication, may not be reproduced, reprinted, sold, redistributed or published in whole or in part for any purpose without prior written consent of CMBIS.

Additional information on recommended securities is available upon request.

For recipients of this document in the United Kingdom

This report has been provided only to persons (I)falling within Article 19(5) of the Financial Services and Markets Act 2000 (Financial Promotion) Order 2005 (as amended from time to time) ("The Order") or (II) are persons falling within Article 49(2) (a) to (d) ("High Net Worth Companies, Unincorporated Associations, etc...) of the Order, and may not be provided to any other person without the prior written consent of CMBIS.

For recipients of this document in the United States

CMBIS is not a registered broker-dealer in the United States. As a result, CMBIS is not subject to U.S. rules regarding the preparation of research reports and the independence of research analysts. The research analyst who is primary responsible for the content of this research report is not registered or qualified as a research analyst with the Financial Industry Regulatory Authority ("FINRA"). The analyst is not subject to applicable restrictions under FINRA Rules intended to ensure that the analyst is not affected by potential conflicts of interest that could bear upon the reliability of the research report. This report is intended for distribution in the United States solely to "major US institutional investors", as defined in Rule 15a-6 under the US, Securities Exchange Act of 1934, as amended, and may not be furnished to any other person in the United States. Each major US institutional investors that receives a copy of this report by its acceptance hereof represents and agrees that it shall not distribute or provide this report to any other person. Any U.S. recipient of this report wishing to effect any transaction to buy or sell securities based on the information provided in this report should do so only through a U.S.-registered broker-dealer.

For recipients of this document in Singapore

This report is distributed in Singapore by CMBI (Singapore) Pte. Limited (CMBISG) (Company Regn. No. 201731928D), an Exempt Financial Adviser as defined in the Financial Advisers Act (Cap. 110) of Singapore and regulated by the Monetary Authority of Singapore. CMBISG may distribute reports produced by its respective foreign entities, affiliates or other foreign research houses pursuant to an arrangement under Regulation 32C of the Financial Advisers Regulations. Where the report is distributed in Singapore to a person who is not an Accredited Investor, Expert Investor or an Institutional Investor, as defined in the Securities and Futures Act (Cap. 289) of Singapore, CMBISG accepts legal responsibility for the contents of the report to such persons only to the extent required by law. Singapore recipients should contact CMBISG at +65 6350 4400 for matters arising from, or in connection with the report.