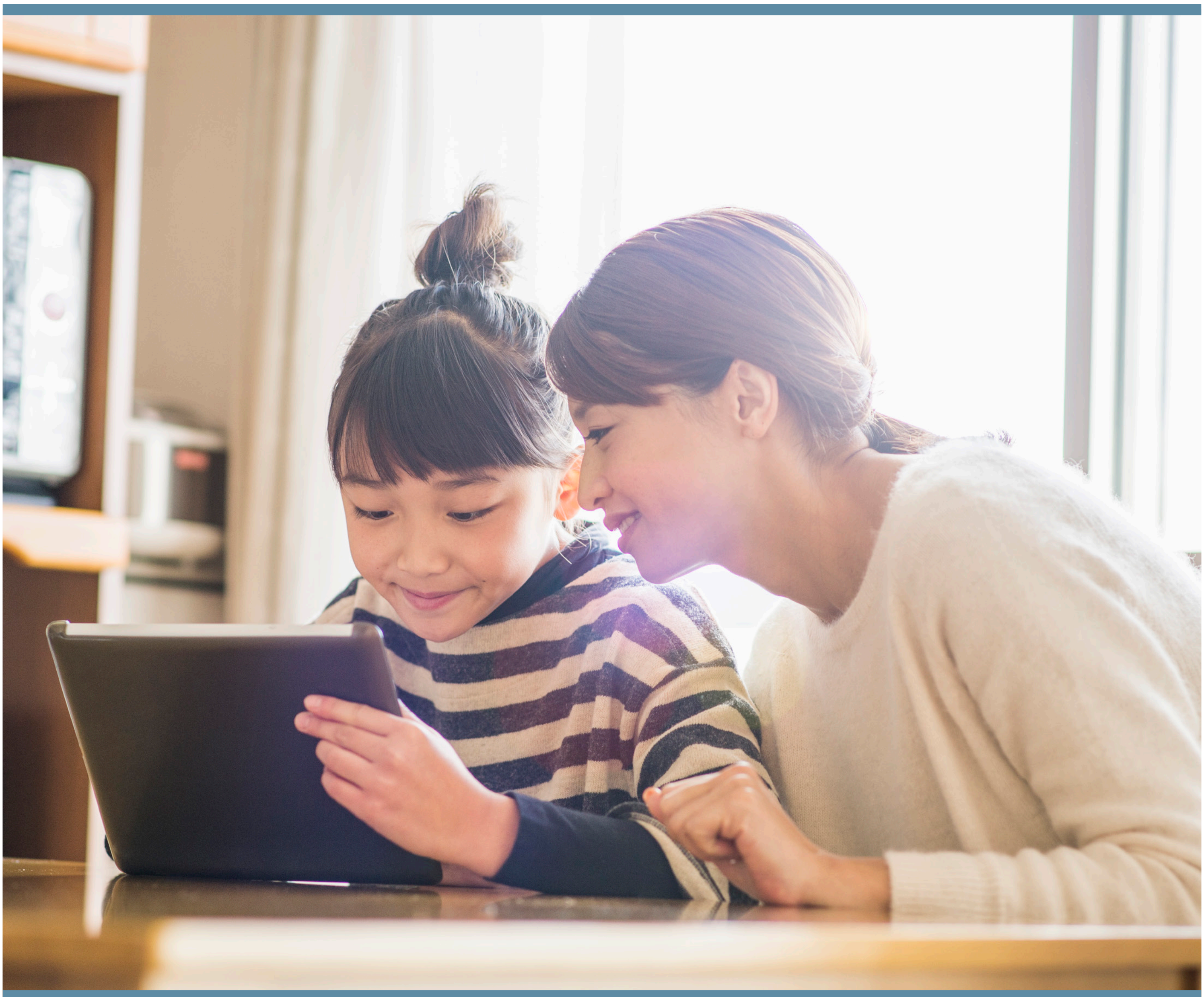
Special Report

China Investment Outlook 2019

Spotlight on Edtech



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Introduction and context for Chinese education market

China has one of the largest education markets in the world, at an estimated US$300 billion in revenues. The country has tremendous demand for high-quality private education offerings, and it has historically offered significant opportunity for growth across sectors.

However, 2018 featured regulatory headwinds for both operators and investors in some sectors while at the same time demonstrating strong growth for others. In this Special Report, the L.E.K. Consulting global education practice explores the critical themes facing the sector and asks: What are the segments most likely to be affected? In the coming years, where is the market going? And how should investors think about the opportunity in China's most talked-about sector — edtech?

Of the 30 largest listed global education companies, nine are now Chinese. In 2013, only two were Chinese (see Figure 1).

2018 continued this trend, with strong demand and growth for private education and record levels of investment. Education deal flow remains strong, with 46 deals and a total deal value of US$9 billion in 2018 (see Figure 2), up from 42 deals and approximately US$4 billion deployed in 2017.

Figure 1

Market capitalization of 30 largest listed education companies, 2018[1]

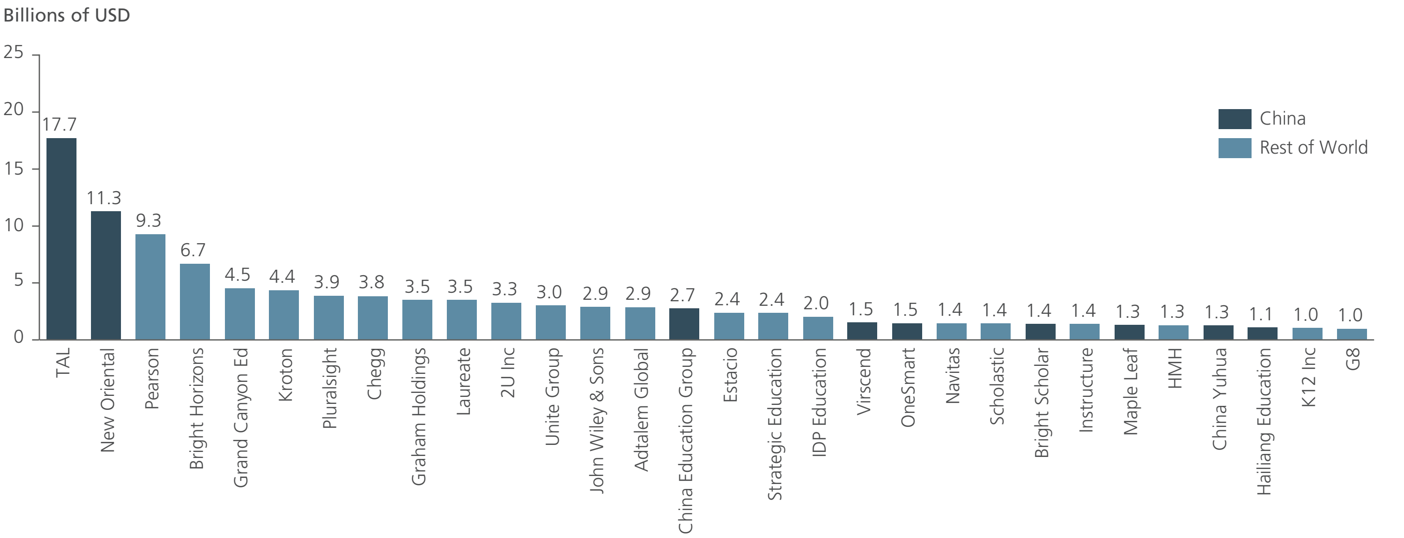
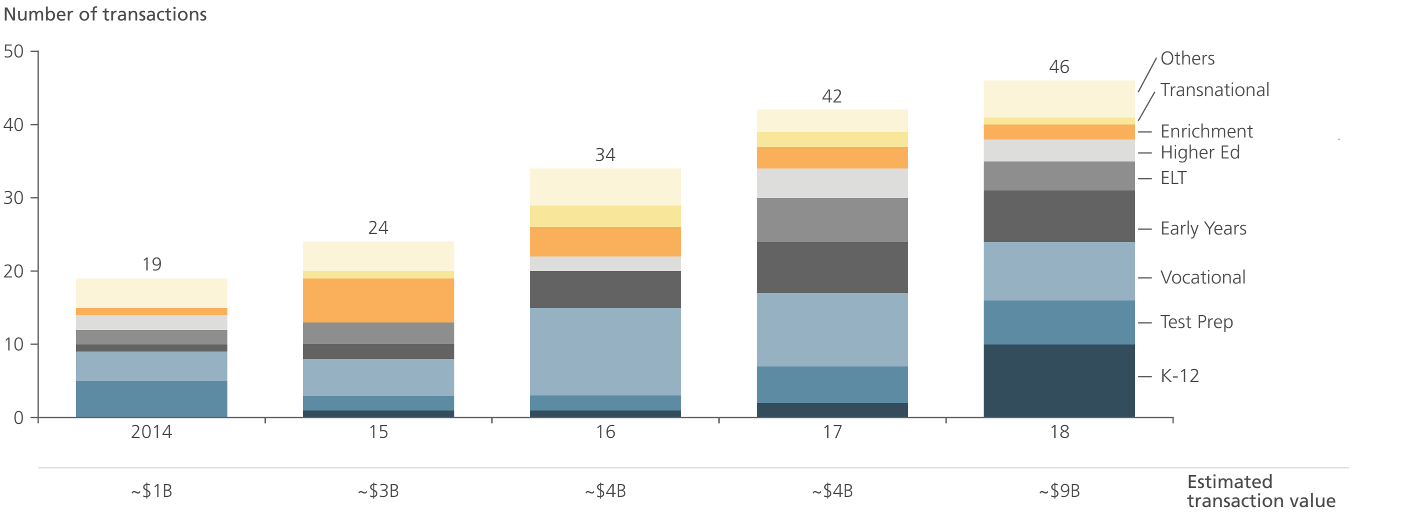


Figure 2

Number of deals, by education subsector[2]



Despite these positive indicators, new regulations have created challenges for the sector. These include:

- **K-12.** Draft regulations for K-12 schools threaten the ability of private providers to operate. These proposed regulations would prevent foreign companies from establishing private schools for grades 1-9 (Chinese compulsory education grade levels). Many foreign investors currently use variable interest entity structures to sidestep government regulations, and the proposed law is expected to place these in jeopardy. Moreover, education groups would be forbidden from controlling nonprofit schools, which would require any potential acquisition targets to convert to for-profit schools prior to acquisition, which would in turn drive up costs and regulatory burdens.
- **Early years.** Policies that tighten rules on private ownership and oversight of kindergartens have been introduced. The government released a policy emphasizing the role of preschool education as a social public good. The consequence for private providers is that for-profit kindergartens cannot go public or be acquired by listed companies; moreover, expansion into the kindergarten market is now off-limits for listed companies and regulations on beneficiary kindergartens limit the size of the for-profit preschool market in localities to 20%, indicating that this is likely to become a predominantly government-supported segment.
- **Higher education and vocational.** As with K-12, there is a potential need to convert acquisition targets to for-profit entities prior to acquisition, which will generate a larger regulatory burden and raise transaction costs.
- **Tutoring, training and enrichment (TTE).** There are new, stringent rules on licensing and operations in after-school tutoring, which would require providers to obtain both operating licenses and education permits. Teachers within these institutions will be required to be licensed, with restrictions on teaching intended to reduce pressure on students. For example, TTE providers will not be allowed to teach ahead of the curriculum and must follow the national curriculum, starting with the basics. Similar regulations are expected to apply to online providers. Therefore, the tutoring market is likely to benefit scale providers and accelerate consolidation. However, scale providers are likely to face higher costs to ensure compliance with the new regulations.

These regulatory headwinds are likely to continue in 2019, and the final draft of the new regulations to be released later in the year.

Even with these regulatory burdens, China remains one of the world's most vibrant education markets and 2019 will present a range of opportunities for investors. In what follows, L.E.K.'s global education practice identifies the likely highlights for investors in the year to come across three areas: **(1) thematic market trends, (2) sectoral trends and (3) opportunistic plays**.

Thematic market trends

There are three key, long-term themes in the Chinese market that influence consumer behavior and business viability: (1) demand for international education, (2) a surge in online adoption and (3) an increase in affluence driving demand for premium products.

1

Demand for international education

International education continues to be a priority for Chinese parents, with more than 870,000 Chinese students studying abroad every year.[3] The top choice remains the USA. International education is driving demand for English language education, both in bilingual schools and for English language training (ELT) providers. However, even young Chinese who remain at home for university and work regard English as a "must have" skill for life and work.

2

A surge in online adoption

In 2018 China exceeded the USA in terms of education innovation and technology investment by approximately three to one. Just 10 companies have absorbed half of this funding.[4] Online models are proliferating, and Chinese consumers, who bring an "online first" mentality, are willing to engage with education products. Some of the implications of this trend are explored later in this report.

3

An increase in affluence, driving demand for premium products

There is concern about China's slowing growth, but this remains at a still substantial 6.5% (and is off a larger base). Disposable income per capita in urban China has grown at approximately 10% CAGR in the past decade.[5] In China, education is "the ultimate consumer good" — consumers are brand-conscious and aspirational. Approximately 50% of Chinese consumers report they will always buy the most expensive product across categories, and education is no exception; families spend an average of 9% of income to help their children get an advantage. While premium products may be under more pressure to demonstrate value given the economic slowdown, the premiumization of education in China is a trend that looks set to continue.[6]

These thematic market trends are observed throughout the education sector and underpin the momentum of fast-growing segments.

Sectoral trends

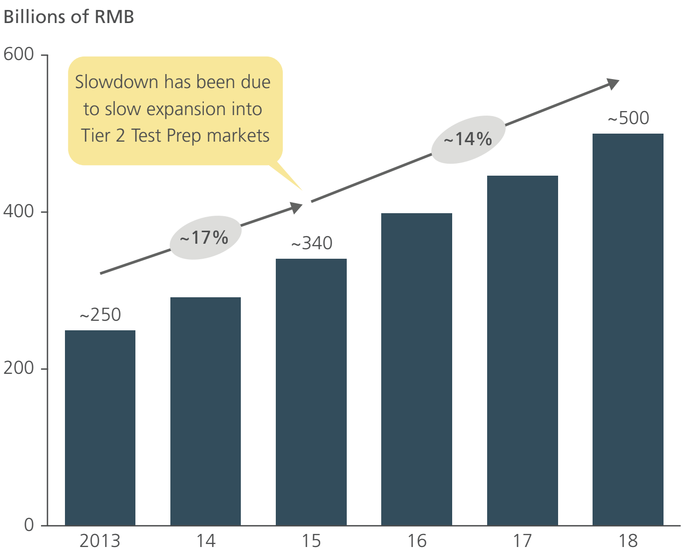
There are four key sectors of education that will be particularly attractive to investors in 2019:

Test prep, tutoring and enrichment (TTE)

China is the largest, most attractive TTE market in the world. It has grown at 14% since 2015 and is now at a revenue scale of RMB 500 billion, or nearly US$75 billion (see Figure 3).

Figure 3

China K-12 after-school tutoring market, 2013-18[7]



The market is underpinned by three key factors. First, despite the expansion of undergraduate seats in China, there is still a high supply-demand imbalance in higher education. Also, the country requires high-stakes *Gaokao* and *Zhongkao* exams for school students. Finally, there are gaps in levels of provision in public schools in some subjects — for example, English. The TTE market is predicted to grow to a scale of RMB 1,500 billion (US$220 billion) by 2023,[8] driven by favorable growth of the relevant age cohort, a growing middle class and intense competition.

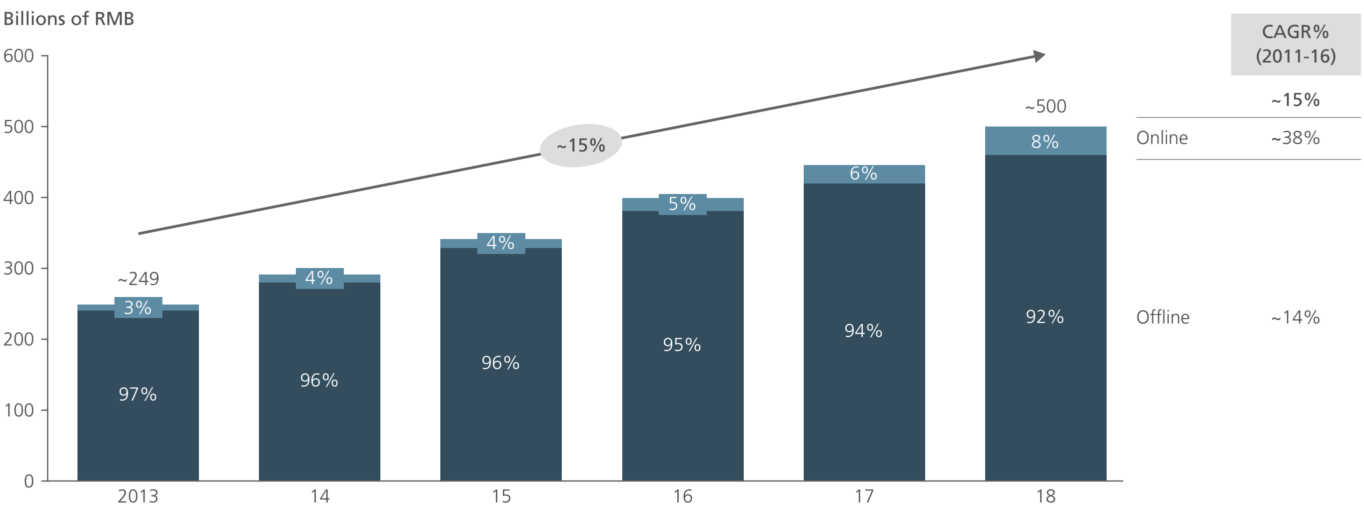
The market tends to be fragmented at the city level, presenting a consolidation opportunity for investors who could look to build the next big TTE platform, following in the footsteps of TAL or New Oriental. Moreover, there is demand for nonacademic enrichment activities such as music and sports, as well as STEM and coding education. The market is also growing quickly in the online sector (at 38% year on year, versus 14% in brick-and-mortar centers), albeit off the low base of online's 8% share of the TTE market (see Figure 4).[9] The projected growth in online is expected to propel the sector to 23% of the total test prep market in 2023, representing an estimated RMB 350 billion (US$50 billion) opportunity.

English language training (ELT)

In this market of US$18 billion, 70% of total revenue is from junior-focused training.[10] Parents aspire for their children to be English-proficient, and that aspiration is driving the market; enrollment in offline, skills-based junior ELT (as opposed to test prep-focused ELT) in Tier 1 cities has grown by 25% year-on-year

Figure 4

Estimated K-12 TTE revenue, by type of offering, 2013-18



since 2014. Both premium and midpriced offerings have had strong growth, at 20% and 30% respectively.[11] In Tier 1 cities, premium provision is preferred. For example, in Beijing, 65% of revenues and a little more than half of enrollments are in the premium segment.[12]

While online provision is still a small segment of the junior ELT market (roughly 10%), it is now a key trend.[13] Given consumer perspectives on online education (to be explored in the second half of this report), supporting traditional center-based ELT companies in moving online will be a key opportunity for investors; one emerging business model observed in China is business-to-business providers who are assisting ELT providers with the move online. Some ELT operators believe there will be government regulation of online provision alongside offline provision under the new regulations, but this is not expected to significantly hinder growth.

Premium offline providers remain a strong subsegment for investors, given that they employ native English speakers and are therefore more resilient and competitive against newer online models offering access to native speakers. Center-based providers that rely on a base of instructors who are not native English speakers are more vulnerable to losing consumer spend to online offerings.

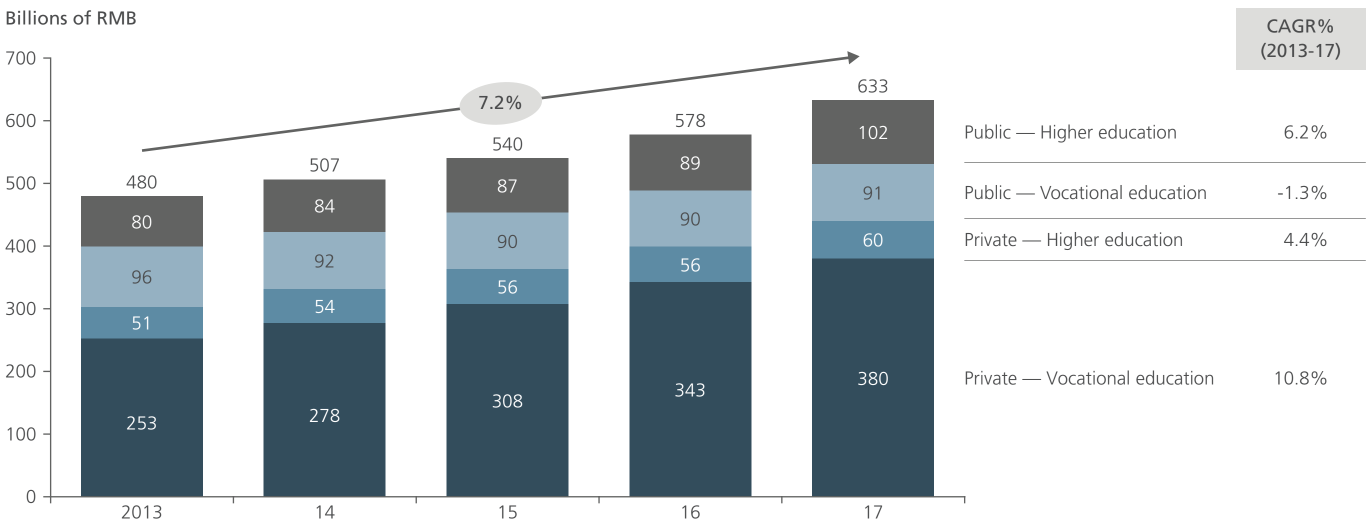
Higher education and vocational

Higher education and vocational training have historically been highly fragmented, presenting a consolidation opportunity for investors. As with K-12, there is the possibility that new regulations under consideration could require the conversion of acquisition targets to for-profit entities prior to transactions, which will generate a larger regulatory burden and raise costs.

The strongest growth since 2013 has been in private vocational education institutions (see Figure 5). China's higher education system is highly skewed toward academic-oriented programs and the demand for practical and employability-related vocational education is not fully satisfied. As China pivots toward a service-based economy, there is a need for the workforce to be trained to meet these new demands. Investors focusing on these segments are likely to see less regulatory intervention and faster growth than other segments.

Reflecting this, there is strong growth of nearly 12% in employability-oriented, non-degree-conferring private vocational education, now a market of nearly RMB 350 billion (US$50 billion).[15] This segment, unlike degree-conferring programs, has no restriction on the share equity of foreign investors.

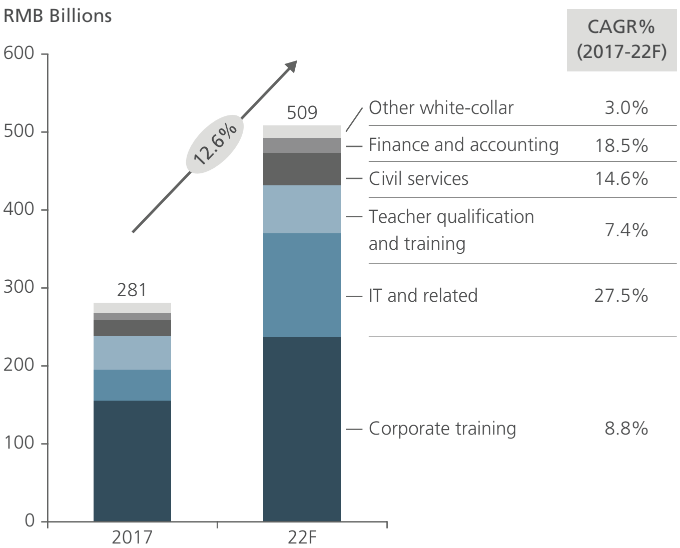
Figure 5
Revenue of Chinese higher and vocational education market, 2013-17[14]



A further subsegment of test preparation for white collar exams such as public accountancy, teaching qualifications, civil service and corporate training has seen growth of nearly 13%, which is anticipated to continue (see Figure 6), growing this segment to an estimated RMB 509 billion (US$75 billion) by 2022.[16] Growth drivers include a growing number of professionals in need of advanced skills and qualifications to enhance their employability, increased demand for test preparation in certificates and qualifications that have consistently low pass rates (for example, the National Civil Service Qualification Test), and the need for upskilling across the workforce with the rise of new technologies.

Figure 6

Total revenue of China white-collar vocational education market, 2017-22F[17]



K-12

Despite the regulatory threats to private provision of grades 1-9, there are robust opportunities in grades 10-12. International education and bilingualism continue to be strong themes, and growth is strong in senior grades that will not be subject to the mooted education rules.

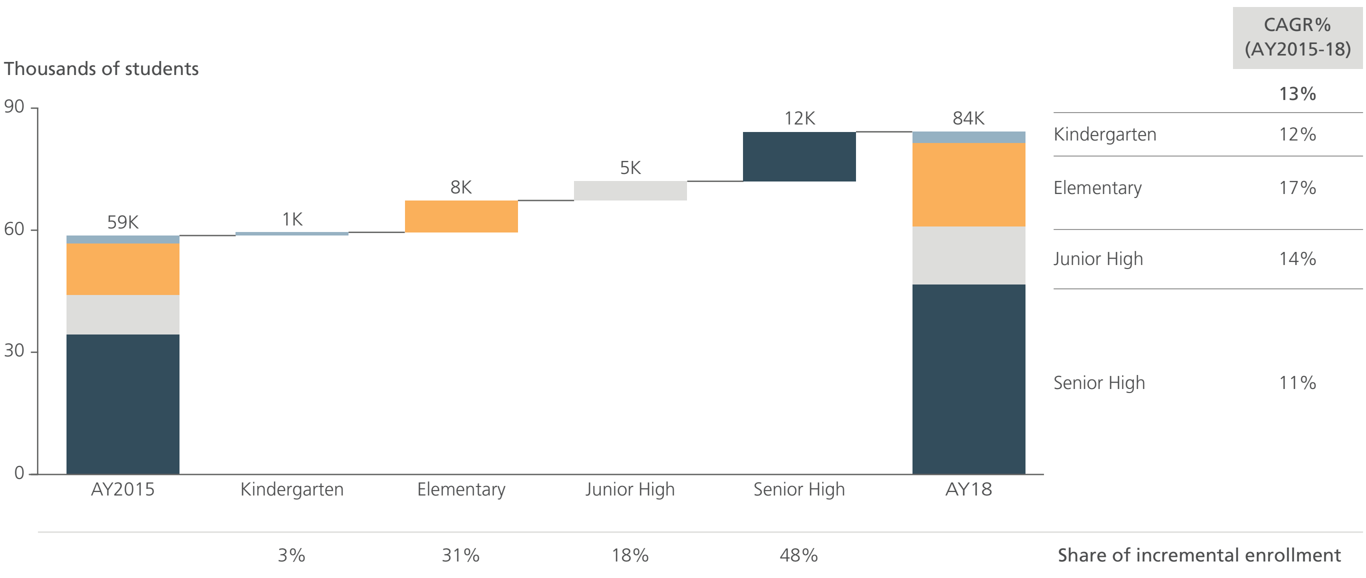
The bilingual K-12 market is large, at US$2.2 billion across the 15 largest city markets, with Tier 1 cities Beijing, Shanghai, Guangzhou and Shenzhen comprising 75% of the market and 84,000 enrollments. Beijing and Shanghai are more established markets, where the concept of bilingual education started with senior grades, while Guangzhou and Shenzhen are new markets with a more diverse grade mix. The market is focused on senior grades, which account for 40% to 60% of enrollment across top cities (see Figure 7). Senior high schools are less regulated than grades 1-9, thus accounting for a larger proportion of private enrollments.

Moreover, senior grade enrollments have grown at a robust 11% over the past three years (see Figure 7).

These four sectors are expected to present growth opportunities for investors in the coming year.

Figure 7

Change in bilingual K-12 enrollment, by grade, top five cities in China[18]



Opportunistic plays

The impact of regulatory headwinds is evident in the stock performance of listed education companies, many of which are trading at historic lows and in some cases below the IPO price.

While the market has recovered somewhat, there is continuing ambiguity that creates downward pressure on the market (see Figure 8).

Figure 8

Stock price variation, before and after regulatory announcements[19]

Stock price, selected Chinese higher / vocational education groups
Jan 2018 – Jan 2019
In HKD

Stock price change (%) on 13th August 2018	
China Education Group	-21%
New Higher Education	-32%
China Xinhua Education	-27%
Minsheng Education Group	-25%

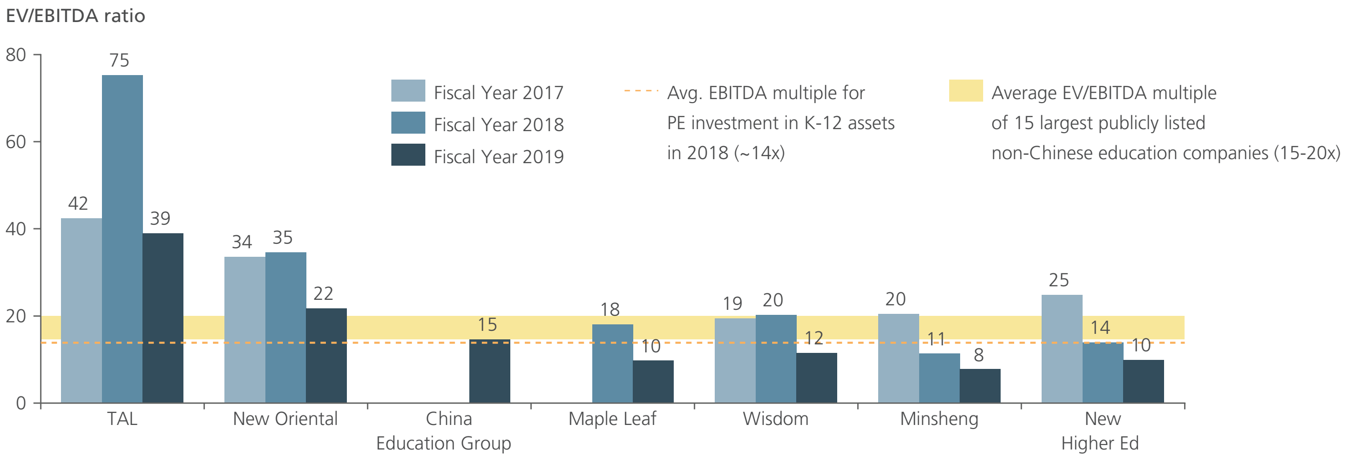
Stock price, selected Chinese K-12 education groups
Jan 2018 – Jan 2019
In HKD

Stock price change (%) on 13th August 2018	
Wisdom Education	-40%
Maple Leaf	-31%
Tianli Education	-37%

Stock price, selected Chinese extra-curriculum education groups
Jan 2018 – Jan 2019
In USD

There are compelling arguments for opportunistic investors to invest in public equities. The decline in stock prices is affecting valuations, which are at three-year lows for the largest listed education companies and are below the average PE EBITDA multiple from 2018 (see Figure 9). At the same time, these companies are still demonstrating strong growth. This points to a potentially strong opportunity for investors to take a stake in public equities.

Figure 9
Enterprise Value/EBITDA, select publicly listed Chinese education companies[20]



Feb	May	August	August	August	Dec	Dec	**Fiscal year end**
46%	26%	117%	26%	29%	40%	75%	**Revenue CAGR (FY18-19)**
33%	13%	NA	40%	33%	36%	41%	**EBITDA CAGR (FY18-19)**

Spotlight on edtech

One key investment theme emerges in China for the coming years: the rise of edtech. As indicated above, growth is robust in online ELT and TTE, and Chinese consumers bring an online-first mentality. The rapid growth of the Chinese edtech sector is one of the most exciting stories in global education investment.

But how should investors and operators think about this sector? Breathless media coverage can obscure market realities and strong investment is not always a sign of a viable business model. L.E.K. sought to go beyond the hype to understand the realities of Chinese edtech, particularly B2C-driven supplementary education, by undertaking a study including a representative survey of more than 2,000 Chinese parents across income groups, children's age and city tier. The analysis evinces how technology in Chinese supplementary education is no longer a question of adoption, but of monetization.

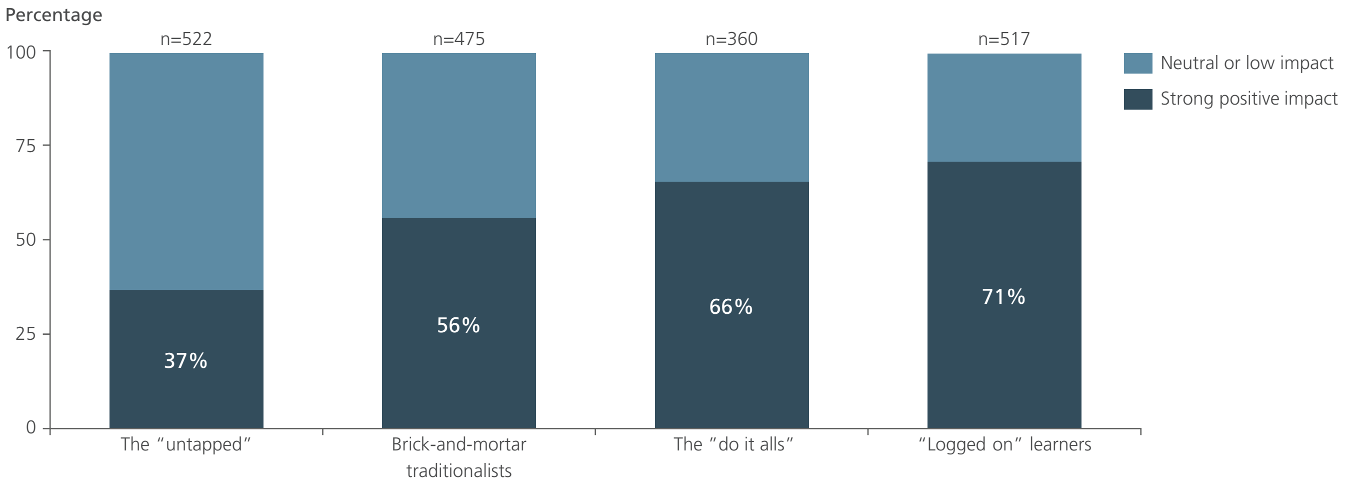
The horse has bolted

Accessing education online is now mainstream in China. The country has 250 million children, with an internet penetration level of almost 60%. These children collectively consume nearly 280 million hours of screen time daily and, of this, almost 45% — or 120 million hours a day — is educational. There are four main consumer segments for supplementary edtech:

1. **The "untapped."** Seventy-five percent of the total population, or 180 million children, still do not access formal, organized after-school tutoring. They are largely from lower-income households, are younger or live in lower-tier cities. While they may access tutoring, it is mainly informal.
2. **Brick-and-mortar traditionalists.** Twenty percent of the school-going population, or 55 million children, access traditional center-based setups in more affluent towns and cities. These children also tend to be in higher grades.
3. **"Do it alls."** Three to five million consumers now access both online and offline supplementary education. There is a greater concentration of these consumers in higher-tier cities and higher-income households.
4. **"Logged on" learners.** Four to five million consumers of supplementary education now access online-only supplementary education. This includes two distinct groups: sophisticated urban learners (typically in Tier 1 and 2 cities) who have migrated from using both offline and online supplementary ed to using online-only, and first-time samplers in Tier 3 and 4 cities who may be moving directly from informal / unorganized tutoring to online.

Both online education consumers and nonconsumers are enthusiastic about edtech, with 60% of all consumers believing that it has a strong positive impact on learning outcomes. Among consumers of online education, this figure rises to about 70% (see Figure 10).

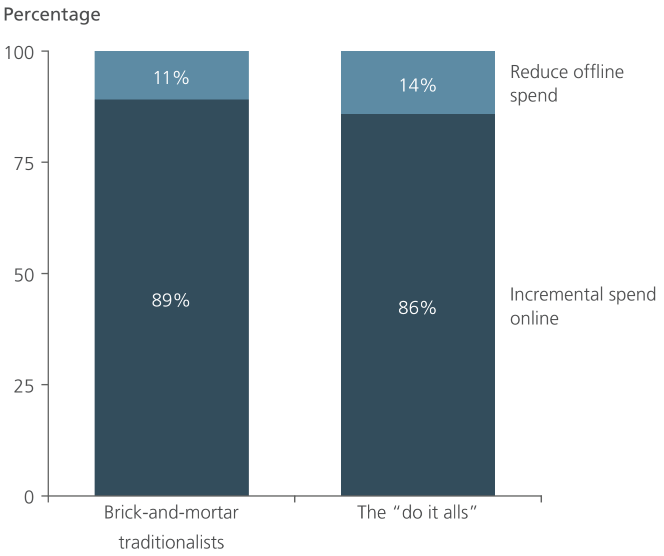
Figure 10
Perceived impact of online education, by user segment[21]



Spend is growing

The value proposition for online education is distinctive. More than 85% of relevant consumers are willing to spend more online (typically 20% to 25% more) rather than cut offline spending (see Figure 11).

Figure 11
Chinese spending behavior on online education, 2018[22]



Survey questions

1. If you decide to purchase online tutoring or digital application, which of the following statements best describes the impact on the spend on your child's in-person tutoring and offline resources?

2. Which of the following statements best describes your spending behavior on your child's in-person tutoring and online learning for English language learning?

This finding is all the more compelling when one looks to comparisons abroad. The size of the U.S. K-12 publishing / content market has remained static since 2007, at around US$8 billion, with spending shifting to digital. While there are significantly more products on offer in the US market, these K-12 content players, unlike Chinese supplementary providers, have not managed to increase spend by going digital.

Chinese consumer willingness to pay for online education in addition to offline indicates that there is a compelling value proposition perceived for each. There may be FOMO — a fear of missing out — driving parents to supplement children's education to get an edge. This is likely exacerbated by weaker English language education in some schools or demand for more specialized training, alongside the ongoing pressures of high-stakes exams.

Different segments, different drivers

Our analysis also reveals that consumer choice in Chinese edtech varies by subsegment, with different drivers for consumers of online English language training (ELT) versus consumers of online tutoring:

- **ELT.** There are 4 to 5 million online ELT students in China. They typically access one-to-one or small-group sessions online with Western native English speakers. The most commonly cited reason for choosing online ELT is better quality of teachers, followed by interactivity and fun, and then individualized attention. These responses reflect the fact that the online ELT offer can connect students with teachers who are typically superior to those in their local brick-and-mortar centers. This is especially true in lower-tier cities. Parents are choosing online ELT because its value proposition is distinctive from that of the offline experience.
- **Tutoring.** There are 8 to 10 million online tutoring students in China. When asked about their primary motivation for choosing online, parents note that time and convenience are the most important factors with cost the second most important, followed by individualized attention. Parents want their children to have extra study support, especially in advance of the intensive *Gaokao* exams, but going to tutoring centers adds hours to days that are already long, and for less affluent consumers the cost of extra tutoring adds up. Online tutoring allows parents to support their children while avoiding some of the cost and inconvenience downsides of brick-and-mortar centers.

There is headroom for growth

There are four key opportunities for edtech players to target consumers and achieve growth:

1. **Go mainstream.** There is a US$10 billion to US$15 billion opportunity in moving beyond early adopters to mainstream consumers. Our research finds that among brick-and-mortar traditionalists (offline-only consumers), 75% are not aware of any online offerings, but of this group, roughly 60% have a highly positive impression of the educational impact of online provision. The current online products could therefore attract these consumers by building awareness.
2. **Onboard them early**. Sixty percent of parents who are in the untapped segment (not consuming online or

offline supplementary education) cite the child's young age as the key reason. Expanding product offerings — potentially into edutainment, while positioning online products as effective and delivered safely at home — could bring more of these consumers online, with a potential for US$1 billion to US$3 billion in revenue.

3. **Upsell the online cohort.** US$1 billion in growth could be achieved by increasing the spend of "Logged-on learners" (online-only consumers) and shifting more of the spending of "Do-it-alls" (online and offline consumers) from center-based products to edtech.

4. **Expand offerings to broader enrichment.** Finally, new market opportunities exist in adjacencies in other subject areas including music, coding and other enrichment. Successful providers could expand their portfolio of offerings to tap into unmet demand for these services.

An innovation imperative

Many companies have ridden the recent surge in demand: For example, ELT providers have grown since 2006, when there were only two players of note in the market (see Figure 12). There are now more than 10 times that number, with nearly 30 active companies.

While some aspects of market evolution remain uncertain, what is clear is that the Chinese edtech sector is poised for further growth. There are implications for both offline and online providers:

Center-based businesses must reinvent or perish. Offline supplementary education is still a viable business, but for offline-only providers, a credible online offering is an imperative. This can be a build-your-own option or (more likely) a B2B solution. At best, without an online strategy, offline providers are leaving revenue on the table and risking disruption by competitors. At worst, these providers may become obsolete — with regional ELT players most at risk of being replaced by fully online provision.

Online providers must get there first with better products. For online providers, there are two key imperatives:

- First, they need to expand products, services and engagement models to tap into key customer segments — in particular, younger users.
- Second, the vast majority of consumers are still offline, and the opportunity for online providers is to use their head start to beat offline providers in tapping into these consumer groups.

What remains to be seen is whether those that have the customers (offline providers) will lose to those that have the products (online providers).

Figure 12
Cumulative ELT brands in China, 2006-2017

Conclusion

In most online businesses, the key battle is to drive adoption. In Chinese edtech, adoption may have been a relatively low hurdle, with rapid capital deployment enabling promotional marketing, coupled with a consumer base already comfortable in a "digital first," hyperconnected ecosystem.

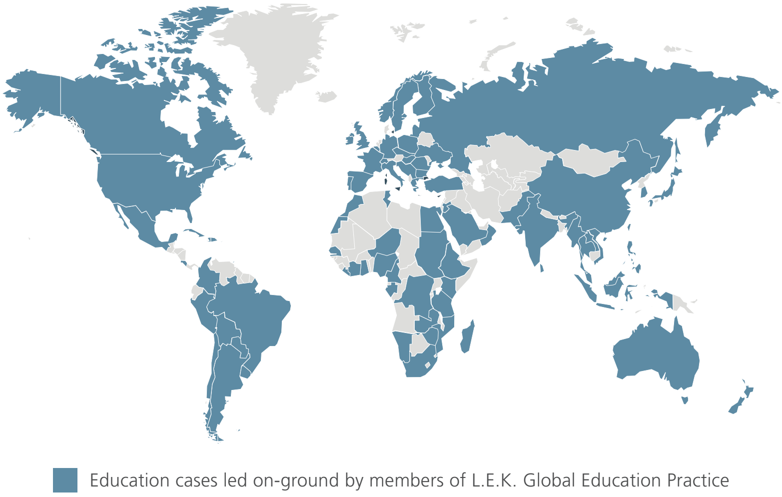
The longer-term challenge for China's edtech companies will be to deliver strong, long-term customer engagement that outlives the current influx of capital. Education is not like other internet businesses in terms of product or delivery engine; it requires consistent quality at scale and at a reasonable price point, with strong student retention and results. Where platforms leverage foreign teachers and tutors, operational complexity will be further complicated by different working and management styles.

The rapid growth of edtech has rightly generated tremendous optimism. Our research shows that consumers in China also have a strong positive impression of edtech's impact. It is vitally important for the sector to learn to manage operational complexity, build the right products and sustain consumer trust in order to ultimately outlast the current hype.

There are certainly exciting opportunities in education technology, and the sector has grabbed the largest share of headlines about the Chinese education investment landscape. In the year ahead, despite the regulatory environment, investors will continue to find growth in edtech as well as a range of sectors including tutoring, training, and enrichment; English language training; higher education and vocational; and K-12.

About the Global Education practice

The L.E.K. Global Education practice (GEP) is a specialist international team whose members bring experience in more than 600 education sector engagements across more than 90 countries. This dedicated group of 60-plus consultants and seven partners and principals is based in Singapore and serves a client base from China to Chile. Our experts bring insights on education businesses, investment opportunities, market dynamics and impact across education subsectors from K-12 to edtech. GEP leaders bring experience serving CXOs and boards of some of the world's largest education sector businesses and advising on most major education deals over US$200 million since 2010.



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[18] School survey (n=480), industry participant interviews, L.E.K. research and analysis

[19] Yahoo! Finance

[20] EV / EBITDA is based on EBITDA reported for the given fiscal year and average of Enterprise Value in the same fiscal year. Data drawn from Thomson Reuters, company reports, and analyst reports. Excludes Chegg (edtech company) and Unite Education (student housing / real estate company).
Source: Thomson Reuters; L.E.K. research and analysis

[21] Question: On a scale from 1 to 7, what is the impact of online education on a child's learning outcome? (1= very negative impact and 7= very positive impact)

[22] Question 1: If you decide to purchase online tutoring or digital application, which of the following statements best describes the impact on spend on your child's in-person tutoring and offline resources? Question 2: Which of the following statements best describes your spending behavior on your child's in-person tutoring and online learning for English language learning?