

# Good as Gold: Resilience and Continued Attractiveness of the Global K-12 Sector

October 2022

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## Agenda

- **K-12 education is an attractive segment**
- Private K-12 is a rapidly growing market
- Premium private K-12 is gaining share — there is significant headroom for growth

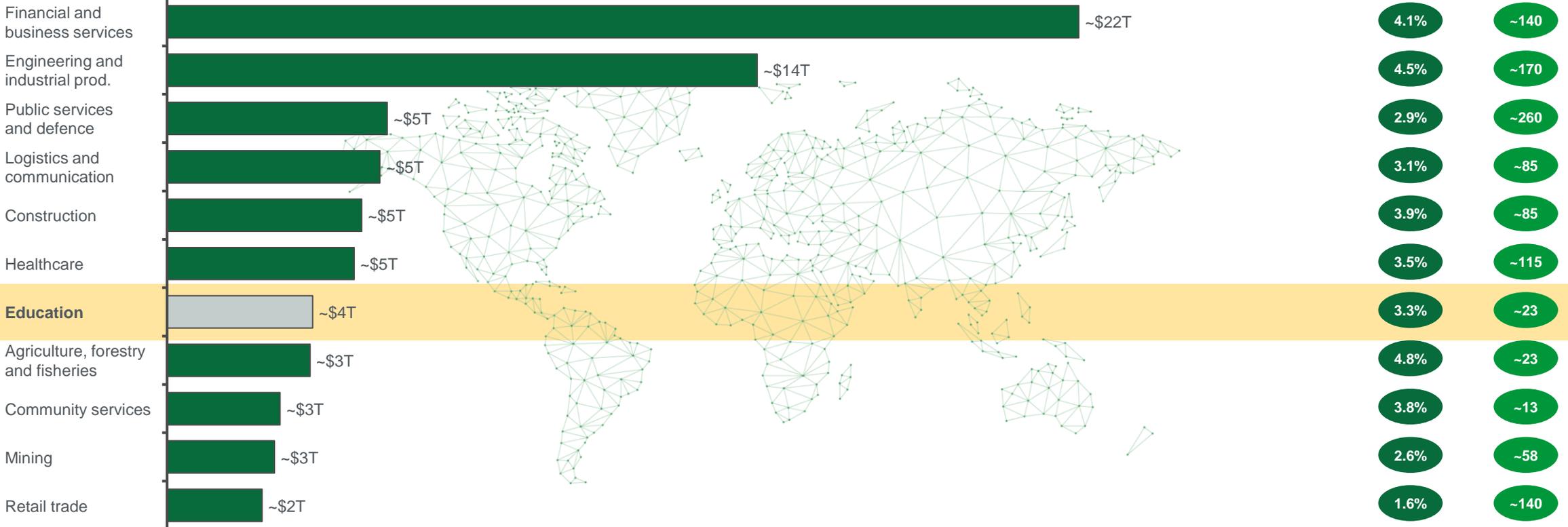
# Education is amongst the top 10 sectors globally (in value), with a worldwide GVA of ~USD 4T in 2019, and has grown at a CAGR of ~3% between 2009 and 2019

Indicative

Gross value added (GVA) is defined as the measure of the contribution to gross domestic product (GDP) made by an individual industry sector

## Global gross value added by sector (2019)

Trillions of USD



\*Companies listed are the number of public companies (excluding education, which includes both private and public)  
 Source: L.E.K. research and analysis based on data provided by Oxford Economics 2020 and data from Forbes

# Within education, the K-12 sector demonstrates salient characteristics that make it most attractive for investment

Salient characteristics of education sector by sub-segment		 Resilience	 Long-term revenue visibility	 Barriers to entry	 Real price growth	 Non-discretionary spend	 Negative working capital	 Operating leverage	 Student tenure
Sub-segments	Description								
Pre-school/childcare	Traditional nursery, kindergarten, infant care and childcare services	↔	↔	↔	↑	↑	↑	↑	↓
K-12	Traditional K-12 schools and K-12 education provision	↑	↑	↑	↑	↑	↑	↑	↑
Tutoring/test prep/academic enrichment	For general reinforcement or preparation of important exams, like a national exam/HE entrance exam	↔	↓	↔	↑	↑	↑	↔	↔
English language training (ELT)	ELT programs and preparation for English exams such as IELTS, etc.	↔	↓	↔	↑	↑	↑	↔	↓
Non-academic enrichment	Engages students in non-academic activities like music, art and dance	↔	↓	↔	↑	↔	↑	↔	↓
Higher education (university)	Traditional college/university programs	↑	↑	↑	↑	↑	↑	↑	↔
Transnational education pathways	Pre-university bridging programs for international students focused on English and gaps in K-12 curriculum of source country	↔	↔	↑	↑	↑	↑	↑	↓
Continuous/adult learning (upskilling)	Short courses for adults in market relevant disciplines	↔	↓	↔	↔	↔	↑	↑	↓
Corporate training	Short training courses for new hires and existing employees	↓	↓	↔	↔	↔	↑	↔	↓
Publishing	Traditional textbook publishers for schools and universities	↓	↓	↑	↔	↑	↓	↔	↔
K-12/HE support services	Services that support K-12/HE operations such as security service, bus service, meal service and study abroad agents	↔	↓	↔	↔	↑	↓	↔	↑

Note: HE=Higher Education, IELTS=International English Language Testing System  
 Source: L.E.K. research and analysis

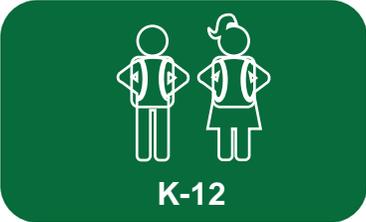
↓ Below sector average   ↔ At sector average   ↑ Above sector average



# Global expenditure on K-12 education is estimated to be USD 3T-3.5T in 2020; it has grown at a 4%-5% CAGR in the past 20 years and is expected to reach USD 4.5T-5.5T by 2030F



K-12 stands for “from kindergarten to 12<sup>th</sup> grade” and equates to a school starting age of 3-5 through to grade 12 at age ~18



K-12 school education corresponds to the in-school education of children (relevant age of 3-18 years, relevant grades from kindergarten to grade 12)



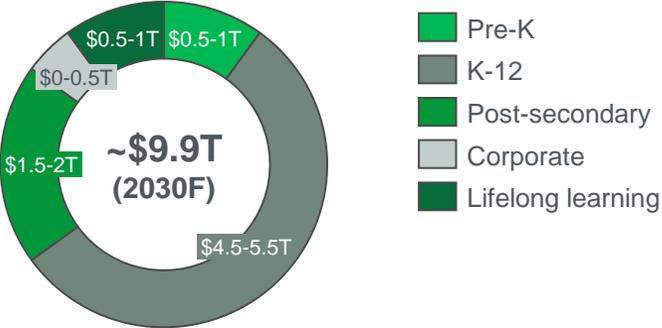
K-12 services correspond to other ancillary services that form the ecosystem of schoolgoing students such as technology (LMS, ERP systems, etc.), tutoring (academic and non-academic), publishing, etc.



Online K-12 corresponds to the upcoming virtual schooling market that offers full-through online school learning

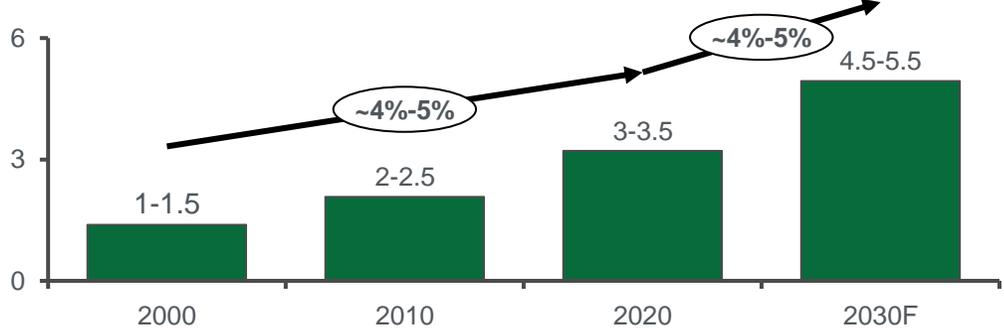
Note: LMS=learning management system, ERP=enterprise resource planning  
Source: L.E.K. research and analysis, based on data from 'Education in 2030' by HolonIQ

## Global expenditure on education and training industry (USD)



## The K-12 segment accounts for 50%-55% of the total expenditure on education and training

Estimated global expenditure, K-12 school education  
Trillions of USD

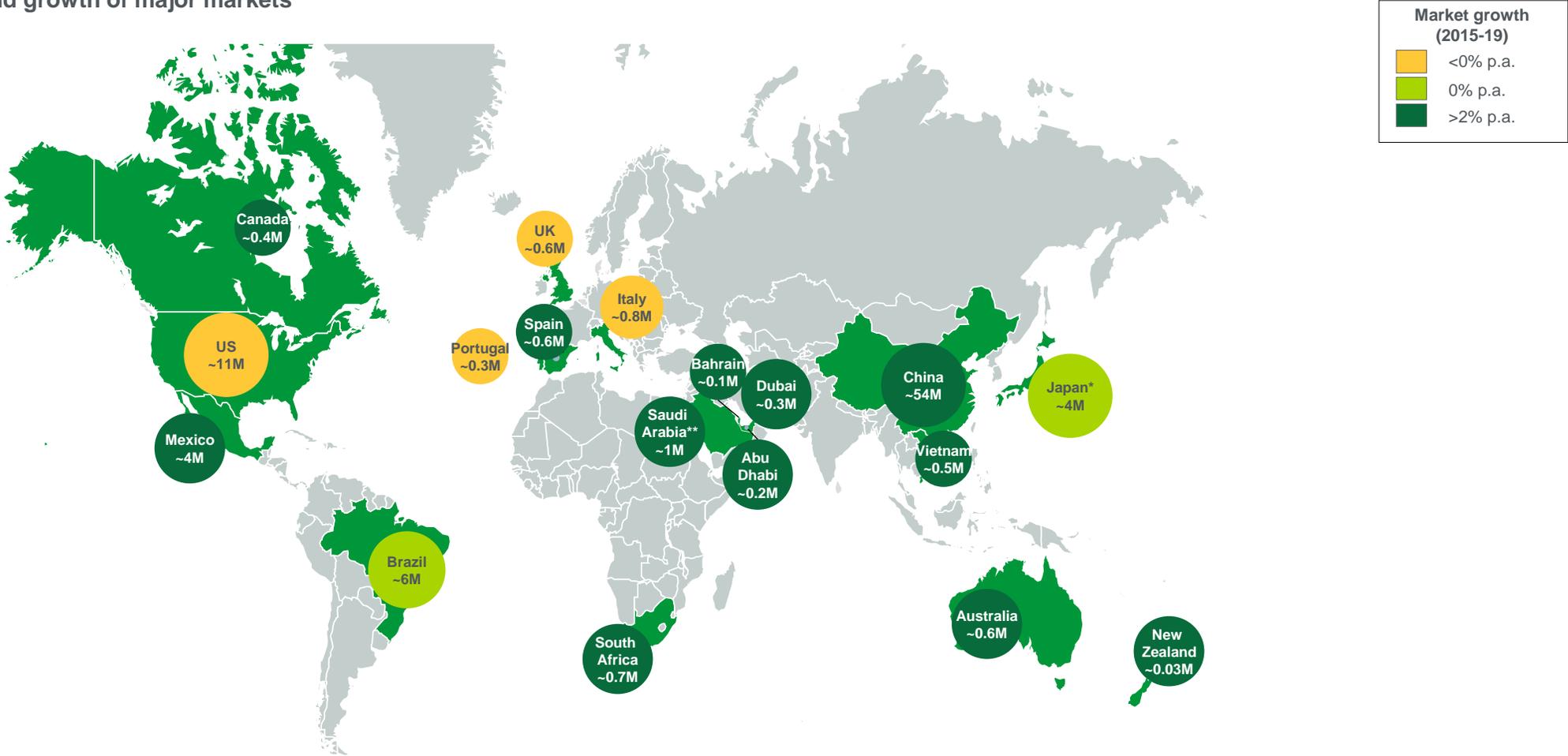


## Agenda

- K-12 education is an attractive segment
- **Private K-12 is a rapidly growing market**
- Premium private K-12 is gaining share — there is significant headroom for growth

# The private K-12 market has ~85M enrolled students across major markets and has grown at a ~2% CAGR between 2015 and 2019

Private K-12 enrolment and growth of major markets (2019)  
USD

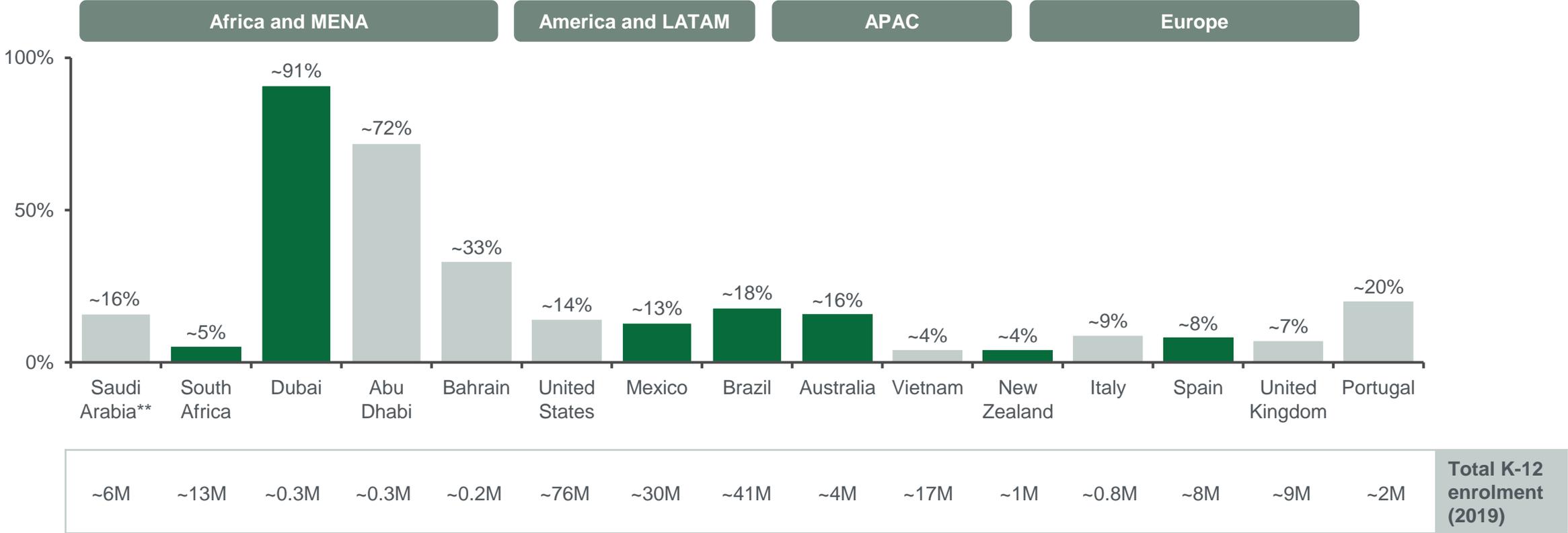


\*Data for 2017; \*\*Data for 2018; major markets globally based on size depicted  
Source: L.E.K. research and analysis, based on the data from Ministry of Education or equivalent of Canada, Mexico, South Africa, Portugal, Spain, UK, Italy, Saudi Arabia, Bahrain, Abu Dhabi, Dubai, Vietnam, Japan, Australia, New Zealand, USA, Brazil and China; data from UNESCO Institute of Statistics, Statista and Xinhuanet

# Privatisation in education is a secular megatrend that is likely to play out for decades to come; private K-12 has gained share over public schools across major markets between 2015 and 2019

Enrolment share of private\* K-12 education, major markets (2019)  
Percentage

■ Increase in share by >2% during 2015 and 2019  
■ Increase in share by 0%-2% during 2015 and 2019

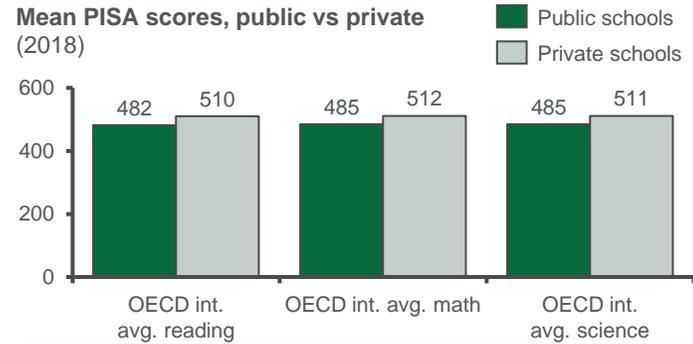


\*Major markets globally depicted based on data availability; \*\*Data for 2018; increase between 2015 and 2018;  
 Source: L.E.K. research and analysis based on the data from Ministry of Education or equivalent of Mexico, Brazil, South Africa, Portugal, Spain, UK, Italy, Saudi Arabia, Bahrain, Abu Dhabi, Dubai, Vietnam, Australia, New Zealand and the US; and data from Statista

# The attractiveness of private K-12 is underpinned by secular growth drivers (1/2)

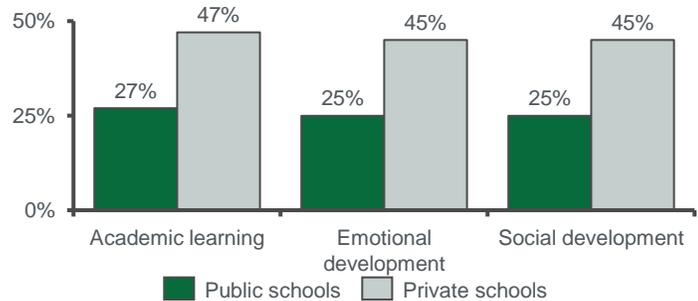
## 1 Poor quality of public provisioning

Mean PISA scores for private schools are better than for public across reading, math and science



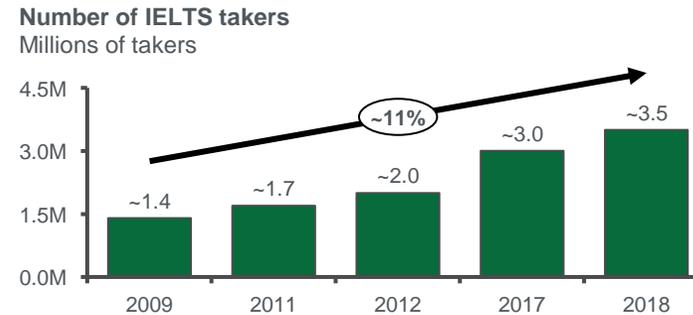
Illustrative case study: <40% of parents in the US were satisfied with education in public schools

Percentage parents rating 'Very Well'1, USA (2020)  
Percentage (N=2200)

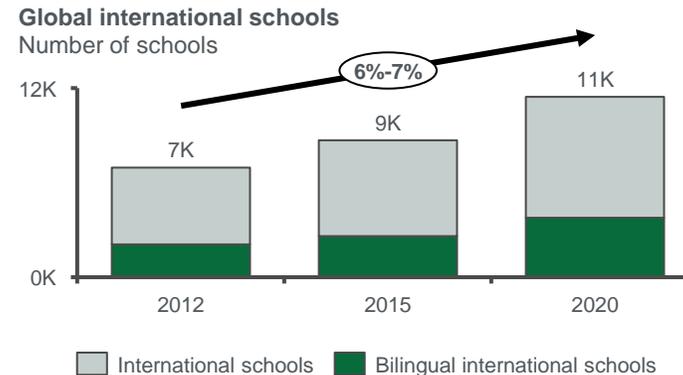


## 2 Growing demand for English-based learning

Number of International English Language Testing System (IELTS) takers have increased at a 11% CAGR between 2009 and 2018

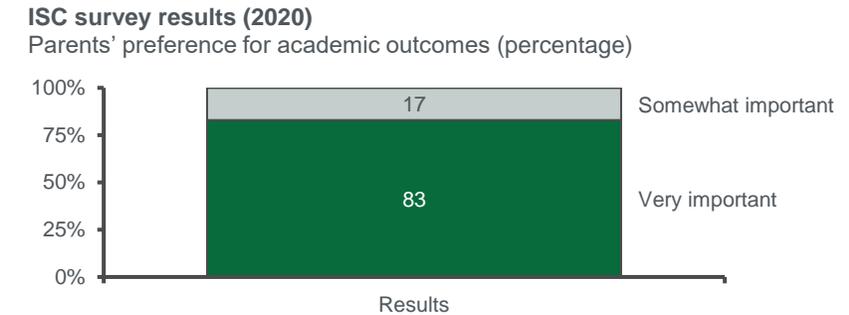


Illustrative case study: International and bilingual schools with English-based learning have grown at 6%-7% CAGR between 2012 and 2020, based on ISC research

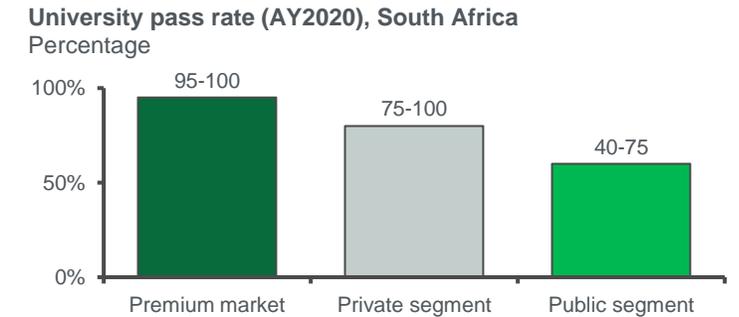


## 3 Focus on education outcomes

83% of the parents in the global ISC survey in December 2020 think education outcomes are very important



Illustrative case study: Outcomes in private schools across key markets are generally better than those of public schools



Private K-12 is a pathway for international higher education

\*Percentage of parents who rated their satisfaction as 'Very Well Satisfied'

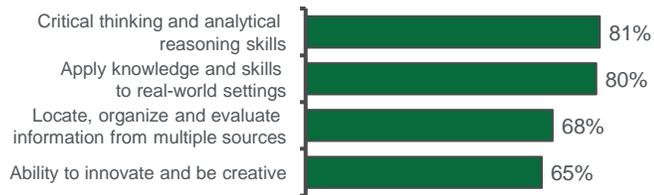
Source: L.E.K. research and analysis based on data from PISA; ISC; Statista; OECD; EdChoice Survey, November 2020 (N=2,200); EMI Oxford (The Centre for Research and Development in English Medium Instruction), 2014; IBO.org; IELTS.org; and Department of Education – South Africa

# The attractiveness of private K-12 is underpinned by secular growth drivers (2/2)

## 4 Demand for holistic development

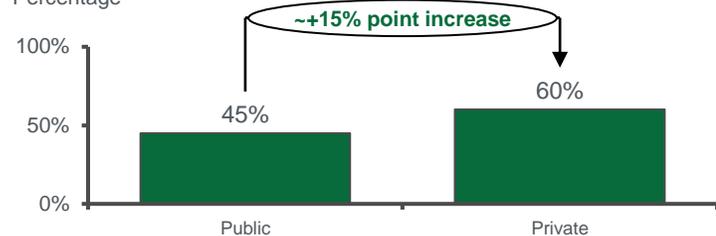
As per a nationwide survey conducted in 2018 in the US, college learning outcomes are rated very important by employers

College learning outcomes rated very important by employers  
Percentage of employers rated (N=400) (2018)



Private schools are typically better equipped than public schools to inculcate 21<sup>st</sup>-century skills

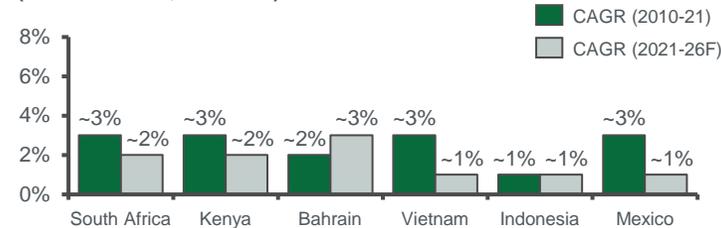
Students at or above proficient in technology and engineering literacy  
Percentage



## 5 Rising affluence in emerging markets

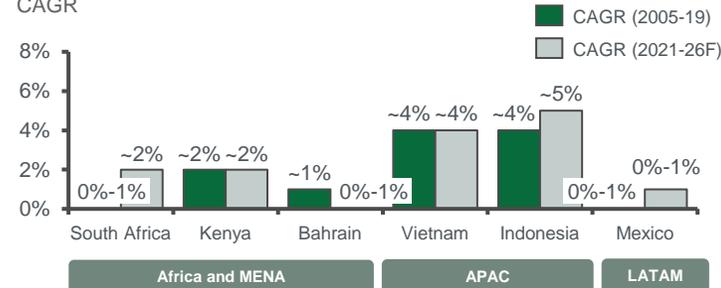
Middle class households on average have grown at 1%-2% CAGR between 2010 and 2021, across emerging markets, and are forecast to grow at 1%-2% CAGR in the next 5 years

Middle class households growth<sup>1</sup>, select emerging markets  
(CAGR 2010-21, 2021-26F)



Average household disposable income on average has grown at 1%-2% CAGR between 2005 and 2019, across emerging markets, and is forecast to grow at 1%-2% CAGR in the next 5 years

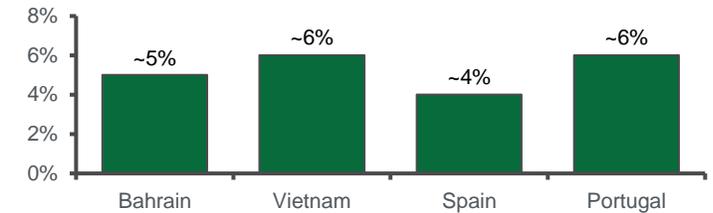
Avg. household income growth, select emerging markets  
CAGR



## 6 Rising expat population

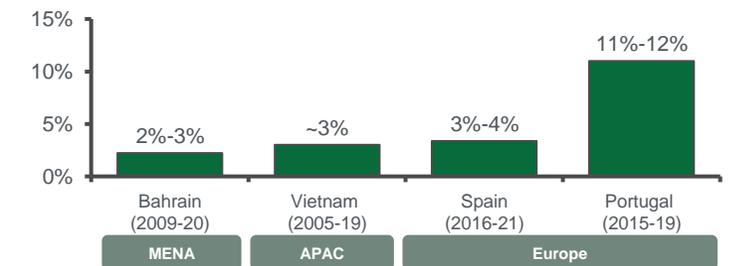
Increasing FDI across many emerging markets has led to the growth of expats in markets

Foreign direct investment growth, select emerging markets  
CAGR 2010-2019



The growing expat population across many emerging markets has led to the growth of private education, as private schools are the only viable option for expats

Growth in expat population, select emerging markets  
CAGR



\*We define the middle class in developed economies as comprising households with an annual disposable income of USD 44,900-USD 99,870 (in constant, purchasing power parity (PPP) terms). In emerging and developing economies, due to lower costs of living, we consider households with a lower income of USD 15,000-USD 45,500 (in constant, PPP terms) as belonging to the middle class.

Source: L.E.K. research and analysis based on data from Hart Research Association Report 'Selected Findings from Online Surveys of Employers and College Students Conducted on Behalf of the Association of American Colleges and Universities'; World Economic Forum; Nations Report Card; UNESCO, MoE Bahrain, INE Spain, Gabinete de Estratègia e Estudos (GEE) – Portugal; and data provided by Oxford Economics 2020

# High barriers to entry and robust business model add to the attractiveness of the private K-12 segment (1/2)



## Established and recognised brands

Long lead time required to establish trusted and reputable brands



## Scarcity of real estate in commercially viable areas (catchment play)

Private K-12 platforms benefit from prime real estate in attractive markets and exclusive relationships with real estate developers that help secure new locations with a minimal upfront investment



## Access to upfront capital investment

Access to capital from intrinsic cash generation across platform and diversified financing sources provides competitive advantage for investing in long-term growth projects



## Long student tenure\*

Focused on jurisdictions where students generally stay enrolled in the same school until graduation, greatly limiting the potential for new entrants



## Deep local market insights

Deep understanding of local markets and catchments through years of extensive research and experience of local management teams



## Secured government licenses and regulatory approvals

Strong relationships with regulatory bodies; operate in geographies with stable and predictable global school portfolio regulatory environment

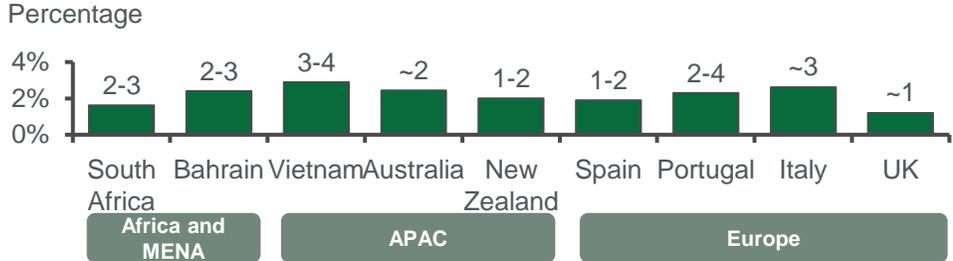
\*Average of local and expat student tenure  
Source: L.E.K. research and analysis

# High barriers to entry and robust business model add to the attractiveness of the private K-12 segment (2/2)

## A Fee growth above inflation

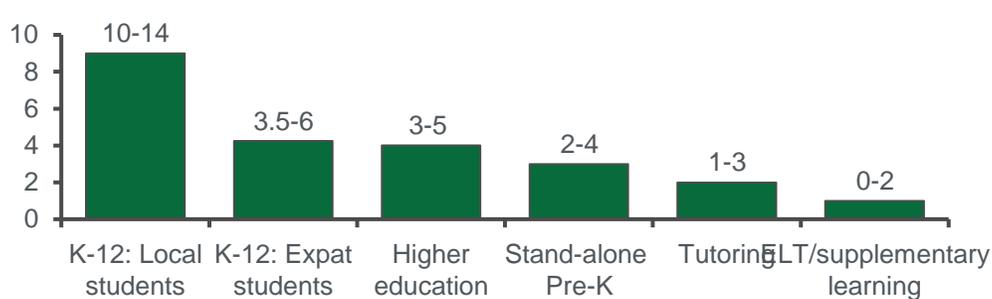
**2%-3%** premium of fee growth over inflation

Market-listed fees growth premium over inflation for select schools, by market (FY2017-20)

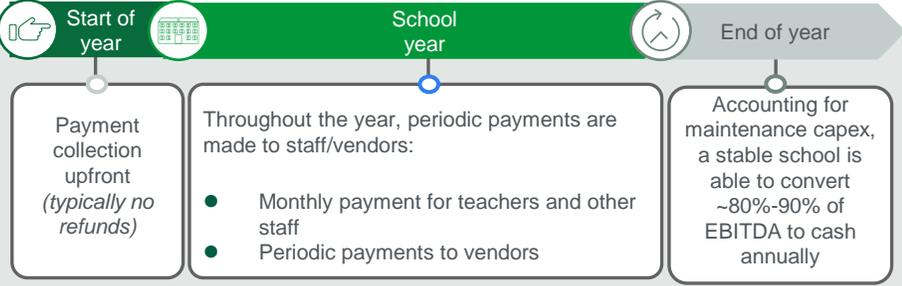


## B Long-term revenue visibility

Average student lifetime, global benchmark by student segment



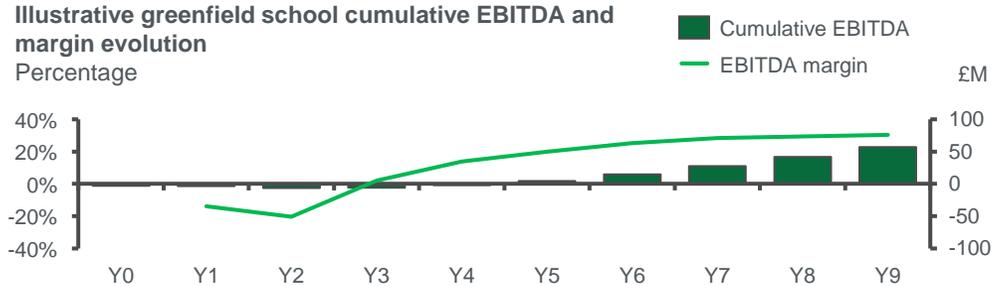
## C Negative working capital requirements



Since schools collect payment upfront and pay vendors/teachers monthly, K-12 schools have negative working capital requirements

## D Predictable cash-flows

**20%-25%** EBITDA in steady state



Source: L.E.K. research and analysis based on data from school websites, market participant discussions and secondary research

## At an average penetration of 15%-25% currently, the private segment across major cities has headroom for growth

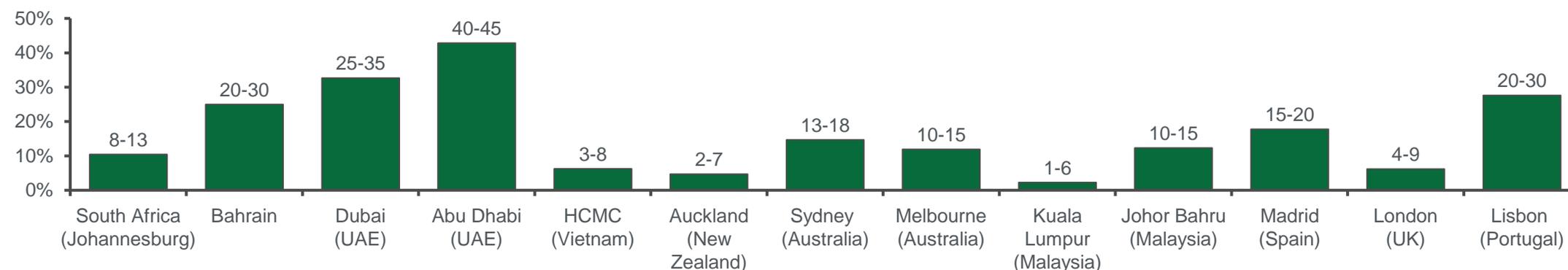
### Africa and MENA

### APAC

### Europe

#### Penetration levels of private K-12 segment (AY2020)

Percentage



~\$1.2K	~\$1.2K	~\$1.2K	~\$1.2K	~\$1.2K	~\$1.2K	Price cut-off* (USD)							
~\$14K	~\$12K	~\$12K	~\$12K	~\$15K	~\$12K	~\$12K	~\$12K	~\$14K	~\$14K	~\$12K	~\$12K	~\$12K	Income cut-off** (USD)
~1.47	~0.28	~0.90	~0.42	~1.43	~0.35	~1.03	~0.99	~1.59	~0.32	~1.11	~2.40	~0.45	Addressable population (M)
150-160	65-75	290-390	175-185	80-90	15-20	150-155	110-120	30-40	35-45	190-200	140-150	125-130	Enrolment (K) (AY2020)
0%-1%	2%-3%	2%-3%	2.5%-3%	13%-14%	2%-3%	2%-3%	2.5%-3.5%	3.5%-4.5%	(3)%-(2)%	2%-3%	(1)-0%	0.5%-1.5%	Enrolment CAGR AY2017-20

\*Price cut-off is the Year 9 listed fees for the most economical school in the respective segment; based on constant 2015 prices; \*\*Income cut-off is the amount of the disposable income a family should have to afford the private and premium education, respectively; assumed ~10% of the disposable income is spent on education, except for Kuala Lumpur, Johor Bahru and South Africa (15% spend on education) and Ho Chi Minh City (HCMC) (20% spend on education)

Source: L.E.K. research and analysis based on market participant discussions and secondary research

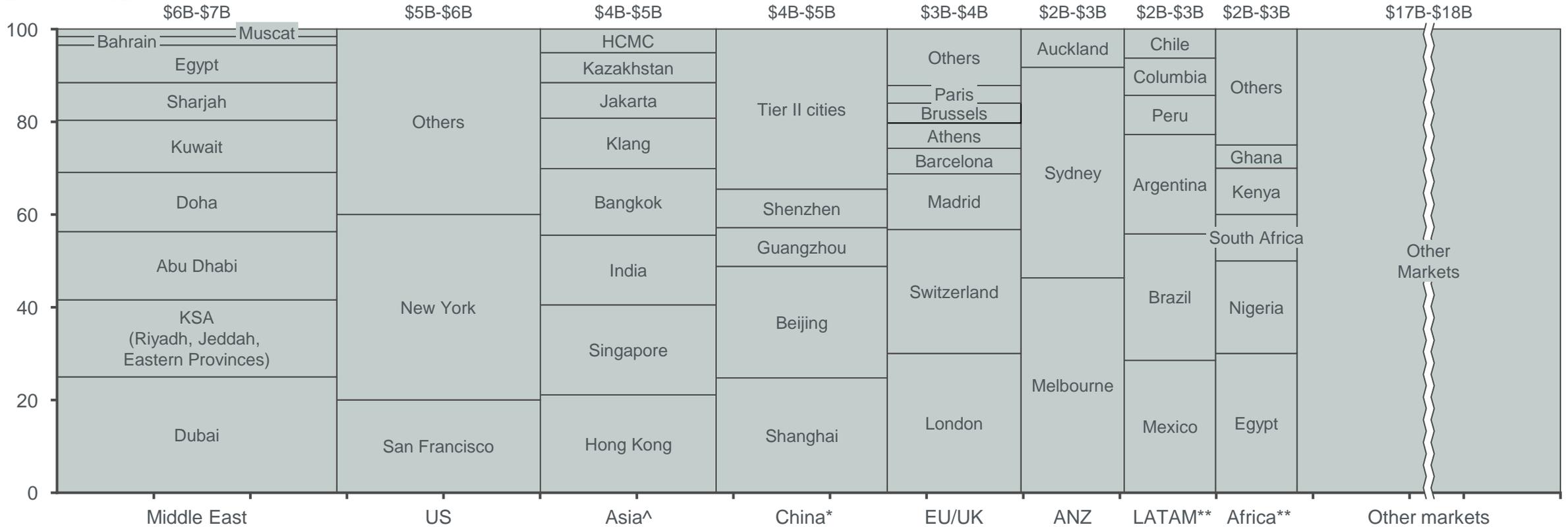
## Agenda

- K-12 education is an attractive segment
- Private K-12 is a rapidly growing market
- **Premium private K-12 is gaining share — there is significant headroom for growth**

# Within private K-12, the international and bilingual curricula school market with fee point >\$6K is sized at \$45B-\$55B in annual revenue across key cities, globally

K-12 market size^^ (fee point >\$6K) by region (AY2020)

Billions of USD



**Total: \$45B-\$55B**

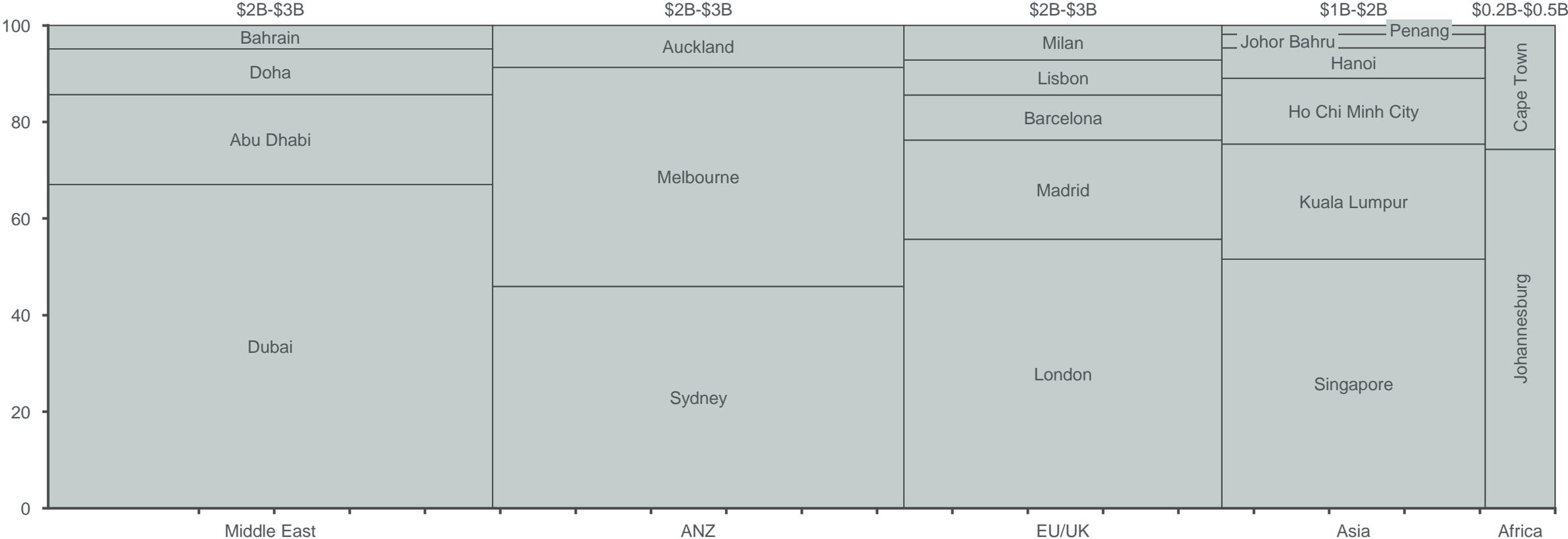
\*China includes only international and bilingual schools; ^Asia includes only international schools, except HCMC; \*\*LATAM and Africa includes schools with English as a medium of instruction; ^^Defined as market size for all schools above \$6K across select non-exhaustive, major markets

Source: L.E.K. research and analysis based on market participant discussions and secondary research

# The premium segment in 20-25 major cities across EU, APAC, MENA and Africa is estimated at \$9B-\$11B in value ...

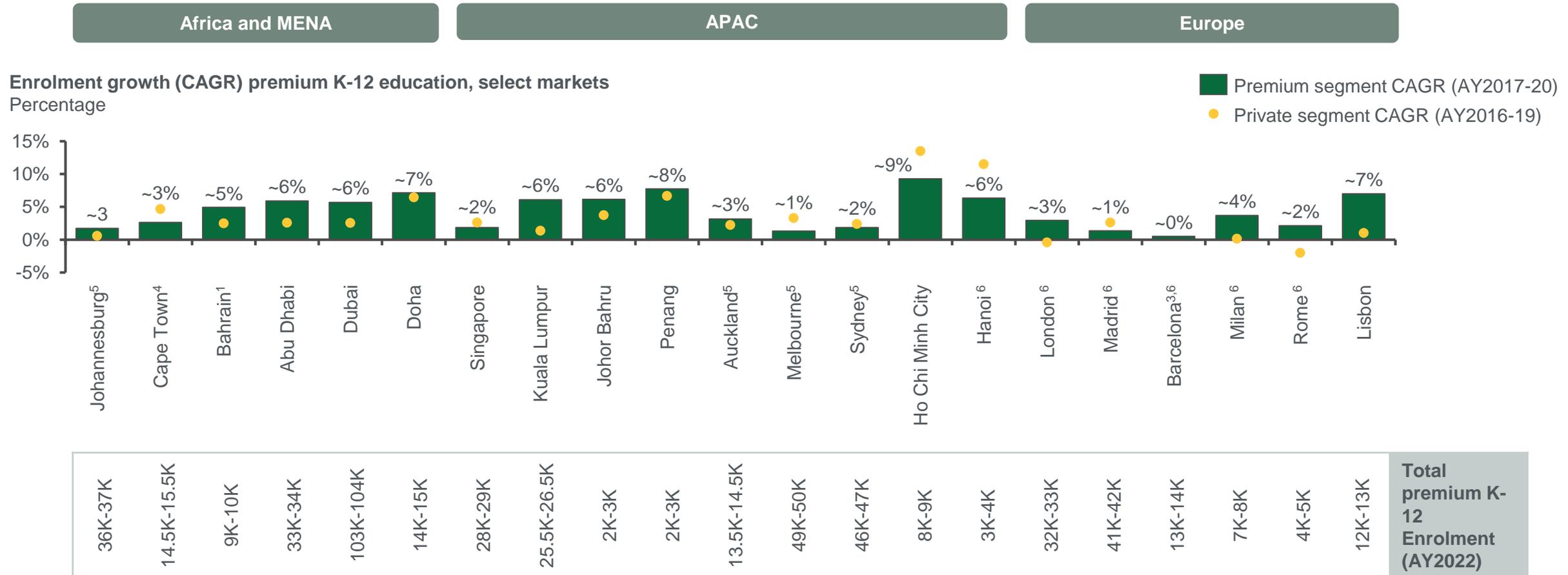
Premium^ K-12 market size, major cities\*, by region  
(AY2022)  
Billions of USD

**Total: \$9B-\$11B**



\*Top cities with major premium K-12 segment; ^Premium segment (segment defined as schools with fees >USD ~6K-24K (cut-off varies from market to market based on local dynamics), based on L.E.K. research  
Source: L.E.K. research and analysis and market participant discussions; Content subject to the disclaimer slide provided herein

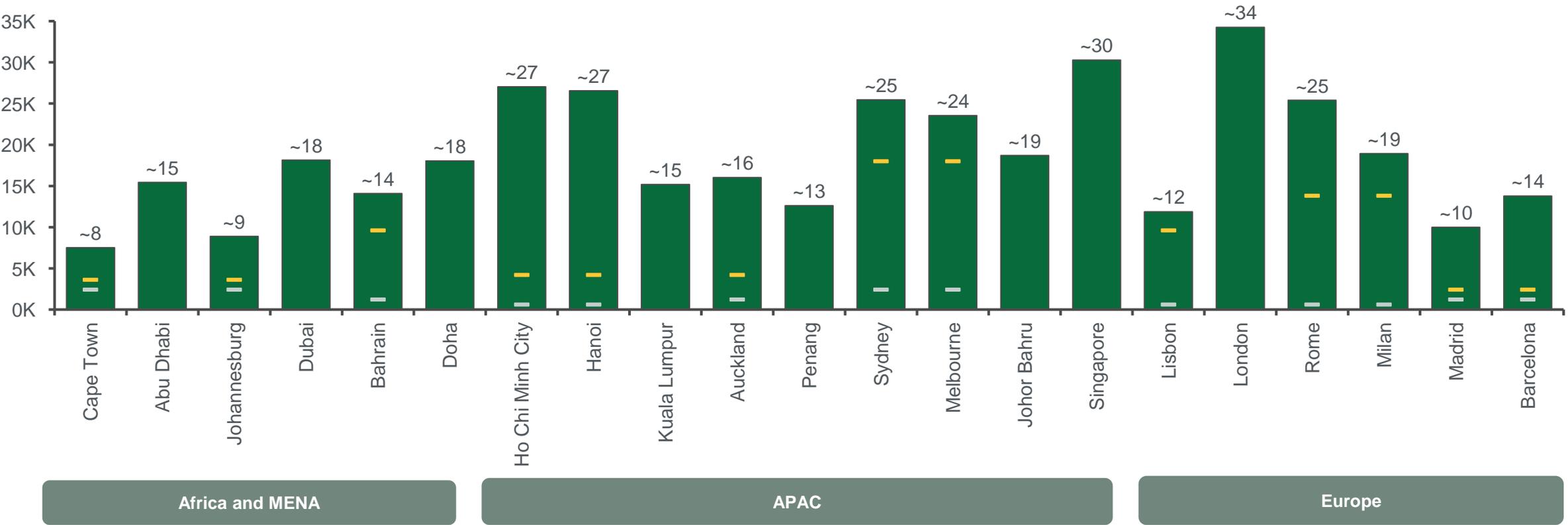
## ... and has grown faster than the rest of the private market, in most of these 20-25 cities



<sup>1</sup>Bahrain's private enrolment growth is for AY2016-19; <sup>2</sup>Penang's private enrolment growth is for AY2018-20; <sup>3</sup>Barcelona's private enrolment growth is AY17-22; <sup>4</sup>For Cape Town's premium enrolment growth is for AY2017-21; <sup>5</sup>For South Africa, New Zealand and Australia, the private enrolment growth is for AY2016-19; <sup>6</sup>For select cities, the premium enrolment growth is for AY2017-22  
 Source: L.E.K. research and analysis based on data from school websites, etc.

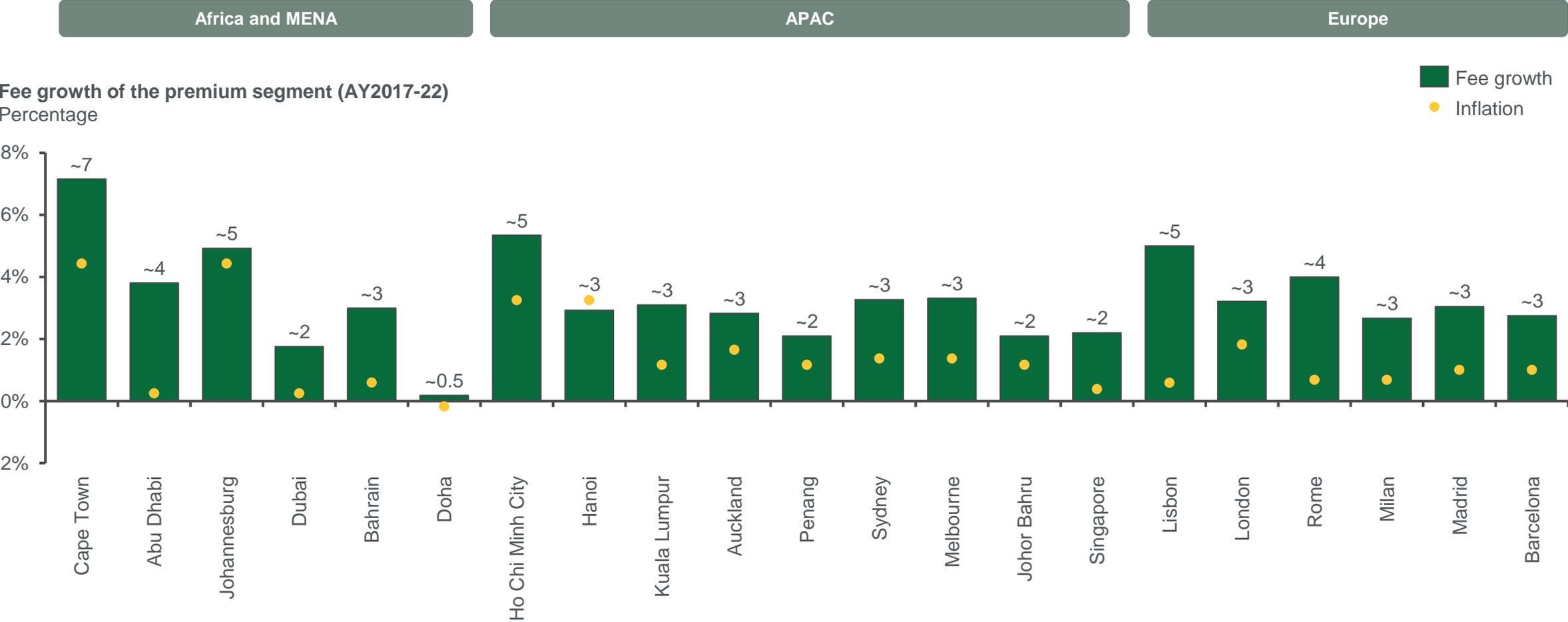
# Priced at a considerable premium to mid-price and public schools ...

Listed annual tuition fee (avg. revenue per subscriber), premium segment vs rest of the market (AY2022)  
USD



Source: L.E.K. research and analysis based on school websites and market participant discussions

# ... the premium segment across major markets has demonstrated fee growth at a premium to inflation between AY2017 and AY2022



Source: L.E.K. research and analysis

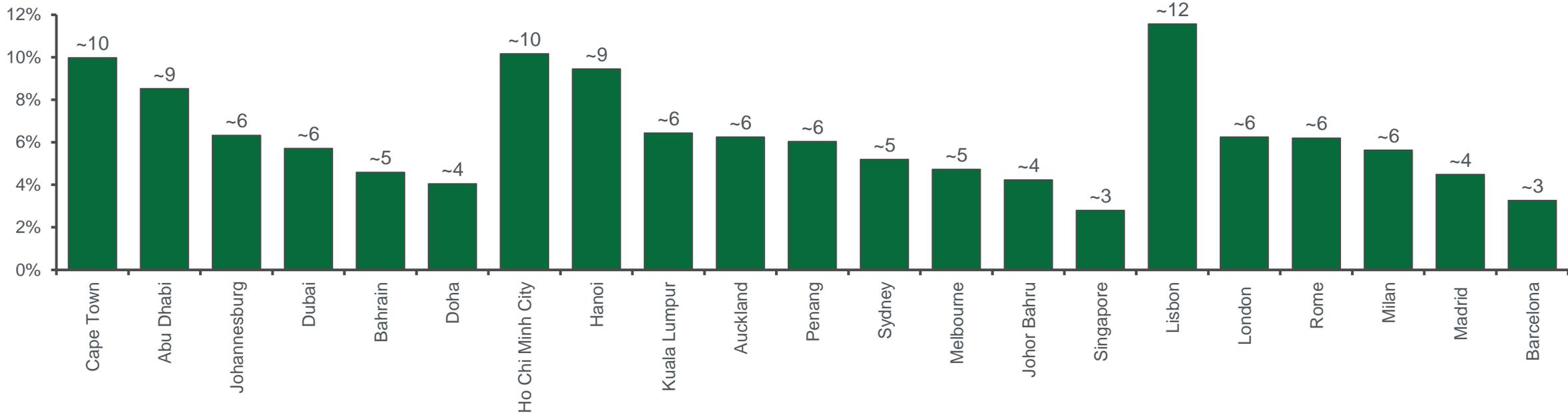
Overall, during the past 5-6 years, the premium segment has seen strong revenue growth ...

Africa and MENA

APAC

Europe

Revenue growth (CAGR) for premium K-12 education, select markets  
Percentage



Source: L.E.K. research and analysis based on data from market participant discussions

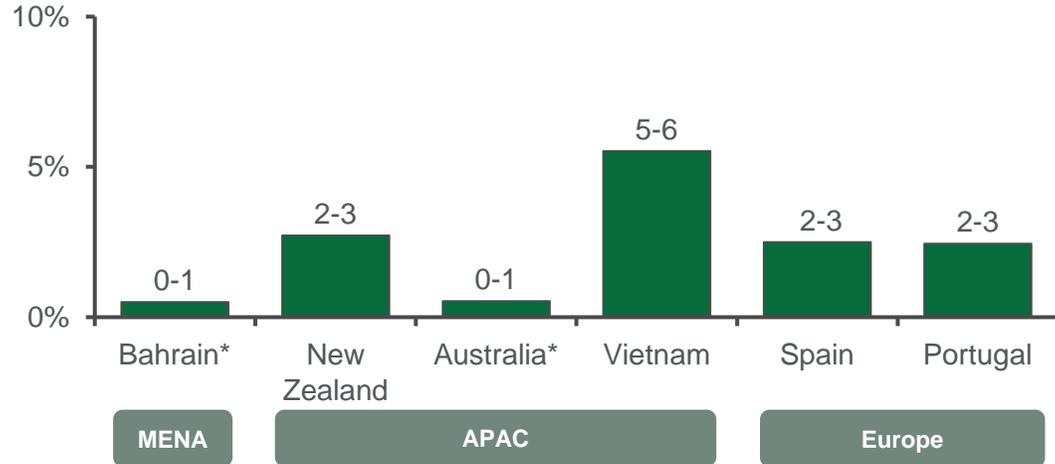
# .... backed by growing affluence and increasing fees, with an increase in white collar salary across the major cities

1

## Growing affluence

Avg. household income of the top-decile growth, select markets (2015-19)

Percentage



The average household income of the most affluent decile has grown across markets; this is backed by the economic growth in these markets

2

## Fee growth with increase in white collar salary

Estimated average salary increase select markets

Percentage



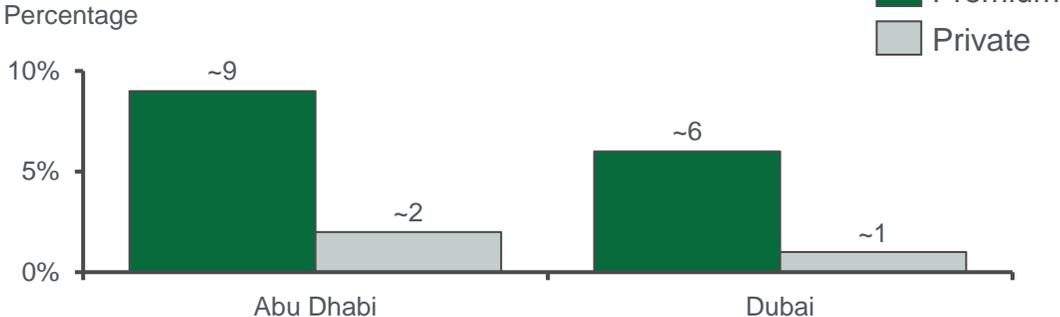
The average increase in salary is higher than the inflation rate across markets; recovery in the economies across region post-COVID-19 has further accelerated the increase in salaries

\*For Bahrain and Australia, the growth rate of average household income of the top decile is from 2010 to 2019  
Source: L.E.K. research and analysis based on data from Salary Explorer

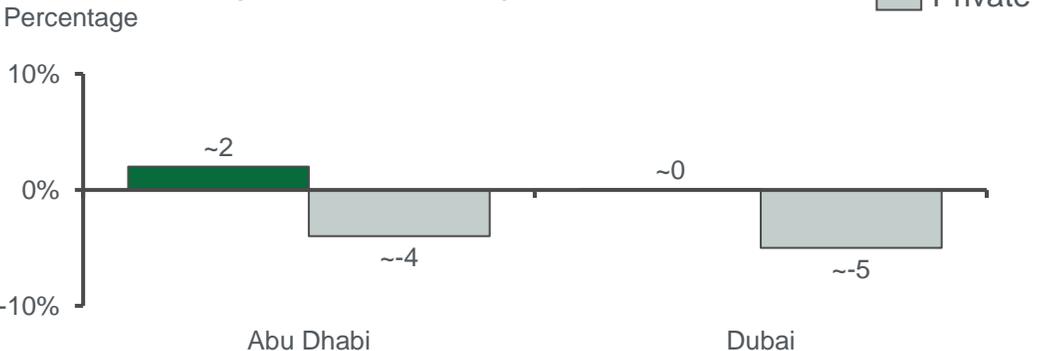
# The premium K-12 segment has also demonstrated higher resilience than the overall private sector during the pandemic in major markets globally

## Case study

K-12 market enrolment growth, premium vs private, select markets (CAGR AY2017-20)

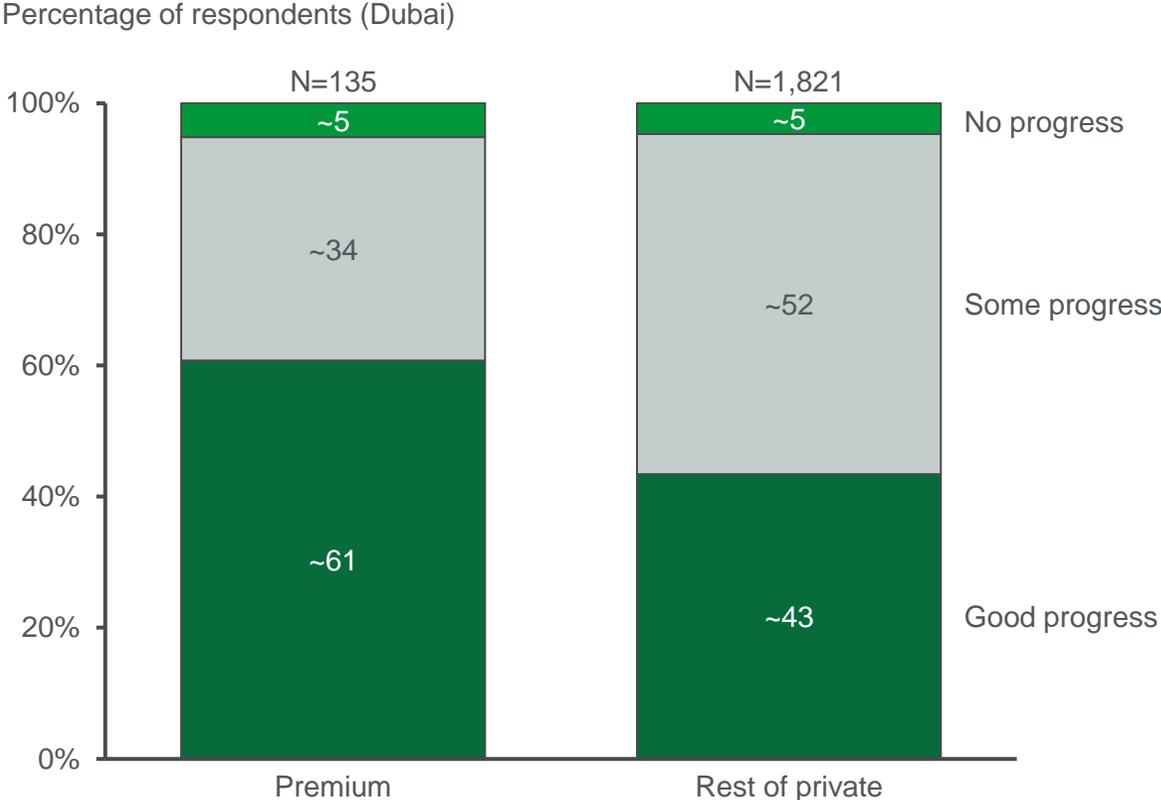


K-12 market enrolment growth, premium vs private, select markets (CAGR AY2020-21)



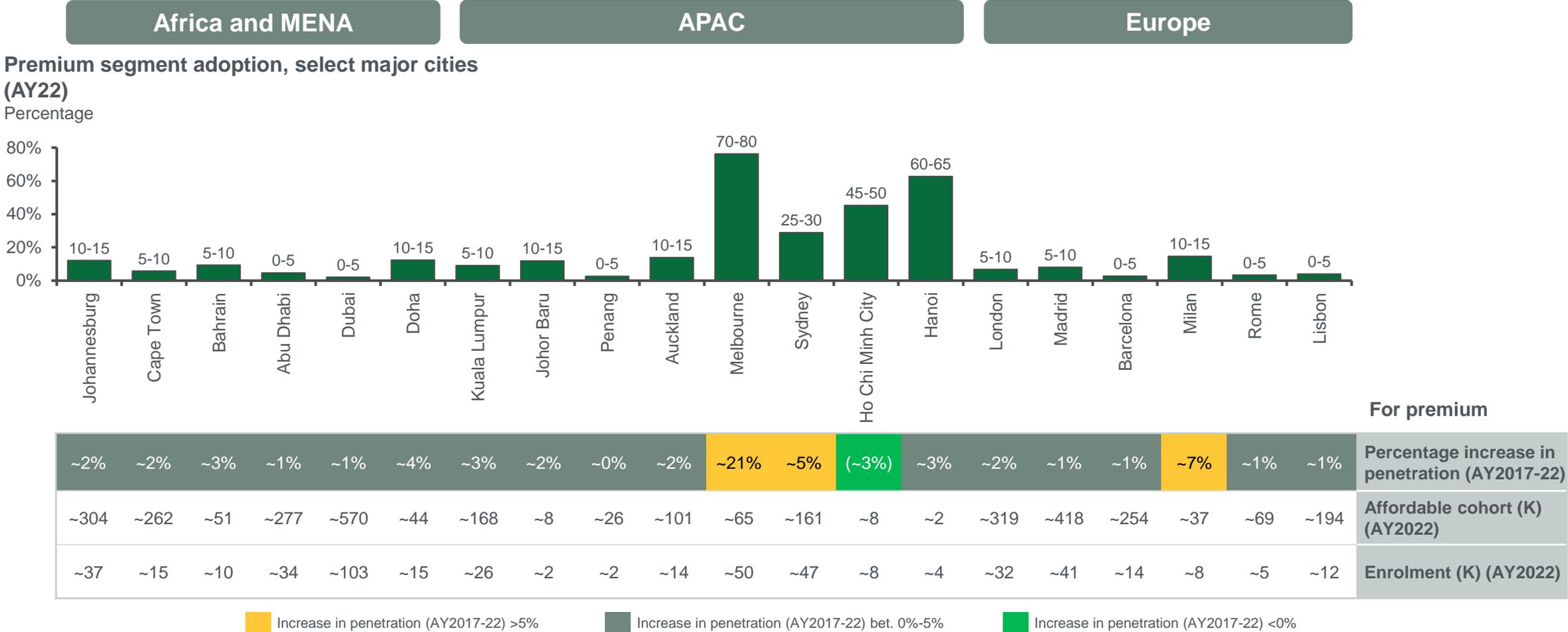
### Q. Has your child continued to make progress and learn new things?

Parents' perception of progress made during online learning



Source: L.E.K. research and analysis based on data from L.E.K. Parent Survey, KHDA data and market participant discussions

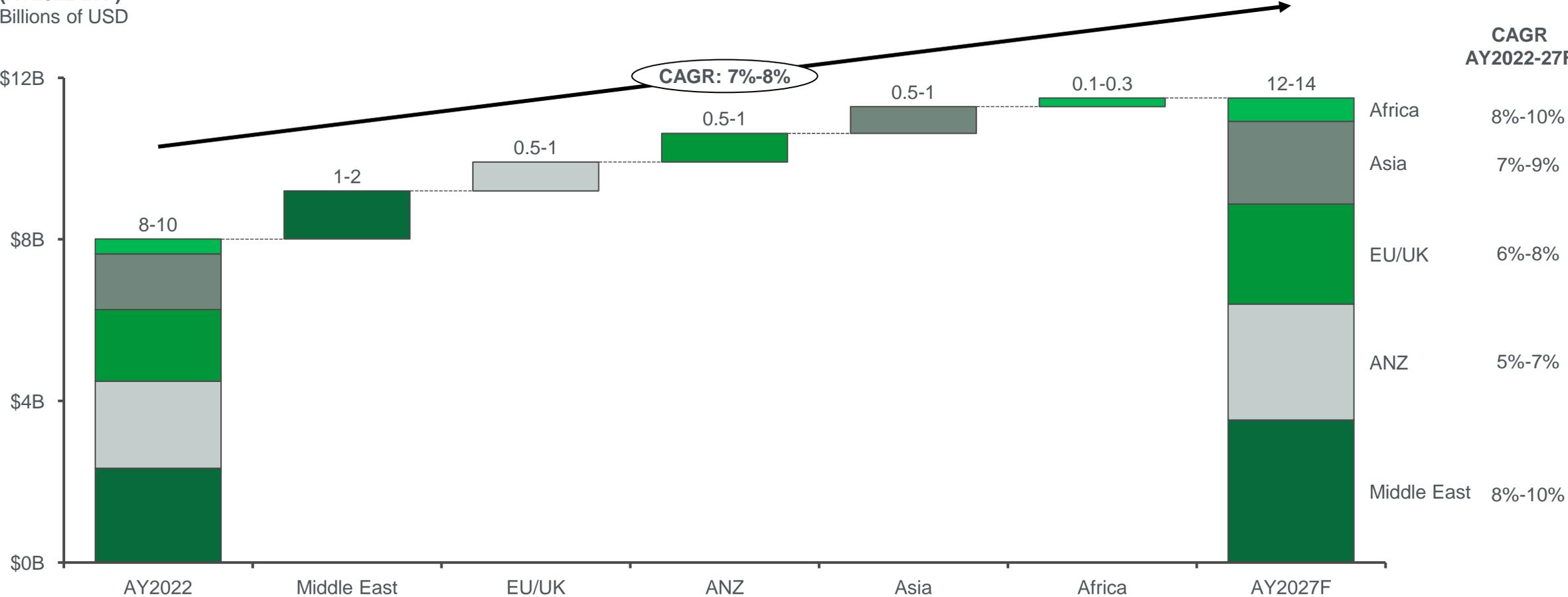
# At an average penetration of 5%-15% currently, the premium segment across major cities has headroom for growth



Note: Values for Australia, New Zealand and South Africa are from AY2017 to AY2021  
 Source: L.E.K. research and analysis based on data from school websites, market participant discussions, and data provided by Oxford Economics

# The premium K-12 segment across the top 20-25 cities is estimated to grow (in value) at 7%-8% CAGR and reach revenue scale of \$12B-\$14B by 2027F ...

Premium K-12 market-size waterfall by region  
(AY2022-27F)  
Billions of USD

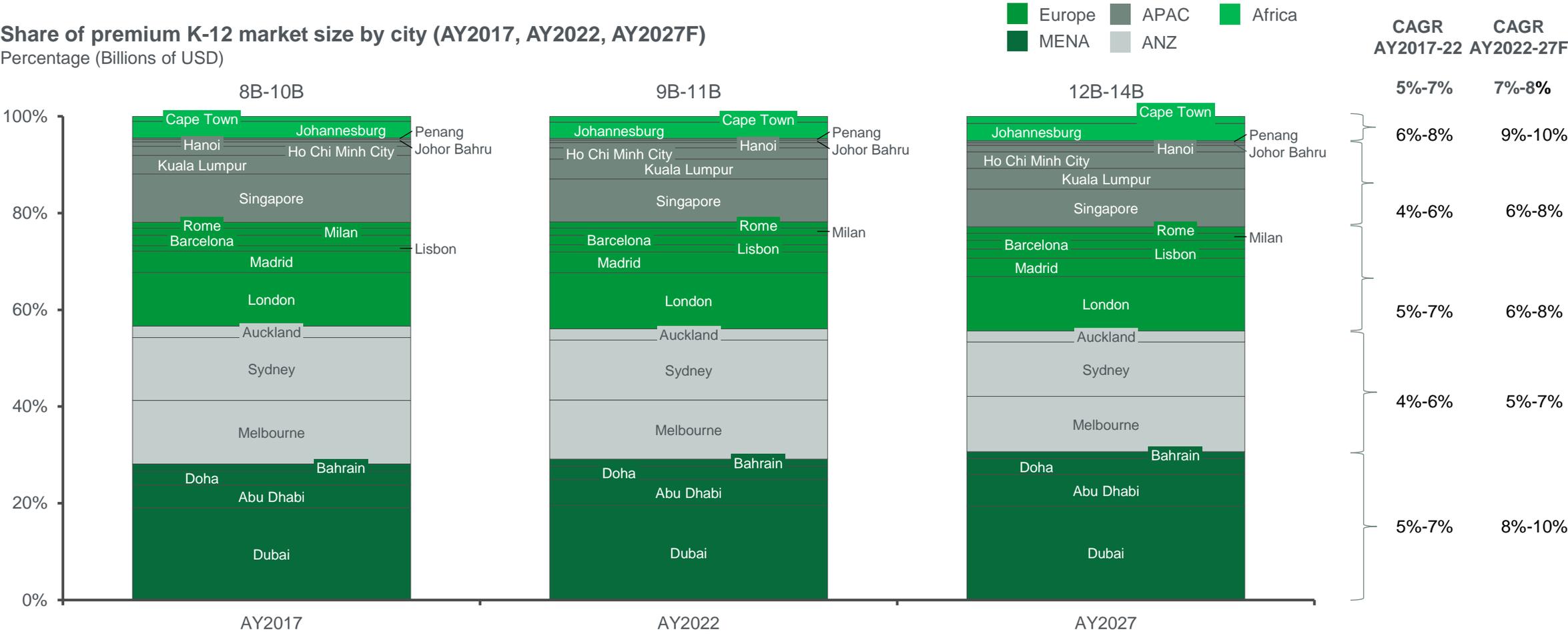


Note: Market size estimation only covers top 20-25 cities across regions; methodology based on demographics, affordability and penetration trends  
Source: L.E.K. research and analysis based on school websites and market participant discussions; content subject to the disclaimer slide provided herein

# ... in line with or slightly faster than the historically demonstrated performance across regions

## Share of premium K-12 market size by city (AY2017, AY2022, AY2027F)

Percentage (Billions of USD)



Note: Data mentioned for Australia, South Africa and New Zealand represents AY2016-21 and AY2021-26  
 Source: L.E.K. research and analysis and market participant discussions



# Overall growth in the premium segment across these top cities is expected to be driven by strong macroeconomic fundamentals, growing affluence and increasing adoption (1 of 9)

Europe	Enrolment forecast — Key parameters						
	AY2017	AY2020	AY2022	AY2027F	CAGR 2017-20	CAGR 2020-22	CAGR 2022-27F
<b>Local demand assessment</b>							
<b>Demographics: Relevant population (aged 3-18)</b>							
Lisbon	450k-500k	450k-500k	450k-500k	450k-500k	0%-1%	(1)%-0%	(1)%-0%
Madrid	~1.1M	~1.1M	~1.1M	~1.1M	1%-2%	0%-1%	(1)%-0%
Milan	~0.8M	~0.8M	~0.8M	~0.7M	0%	(1)%-0%	(1)%-0%
<b>Affordability*: Average HH disposable income (in thousands of USD)</b>							
Lisbon	~38	~40	~39	~41	1%-2%	(1)%-0%	0.5%-1.5%
Madrid	~51	~53	~52	~56	0%-1%	(2)%-(1)%	1%-2%
Milan	~56	~57	~55	~57	0%-1%	(2)%-(1)%	0%-1%
<b>Adoption %</b>							
Lisbon	0-5	0-5	0-5	3-8	-	-	-
Madrid	6-7	7-8	7-8	9-10	-	-	-
Milan	6-11	8-13	12-17	25-30	-	-	-
<b>Market enrolment potential (K)</b>							
Lisbon	5.5-6.5	6.5-7.5	7.5-8.5	9-10	5%-7%	4%-6%	4%-6%
Madrid	31-32	32-33	33-34	35-36	1%-2%	1%-2%	0%-1%
Milan	4.2-4.7	4.5-5	5-5.5	6.1-6.6	5%-7%	~0%	2%-3%
<b>Expat demand assessment</b>							
<b>FDI stock (in billions of USD)</b>							
Lisbon	~133	~155	~143	~169	5%-6%	(5)%-(4)%	3%-4%
Madrid	~772	~886	~777	~947	3%-4%	(6)%-(5)%	3%-4%
Milan	449	~530	~400	~507	5%-6%	(14)%-(13)%	4%-5%
<b>Market enrolment potential (in thousands of USD)</b>							
Lisbon	2.5-3.5	3-4	4-5	6.5-7.5	9%-10%	9%-10%	7.5%-9.5%
Madrid	7-8	7-8	7-8	8-9	1%-2%	1%-2%	2%-3%
Milan	1.8-2.2	1.9-2.3	2.2-2.4	2.8-3.8	2%-3%	~0%	4%-5%
<b>Total demand assessment (K)</b>							
Lisbon	7.5-9.5	9.5-11.5	11.5-13.5	15.5-17.5	6%-8%	6%-8%	6%-8%
Madrid	38-39	40-41	41-42	43-44	1%-2%	1%-2%	1%-2%
Milan	6-7	6-7	7-8	8-9	5%-6%	~0%	3%-4%
<b>Fee growth (in thousands of USD)</b>							
Lisbon	9-10	10-11	11-12	15-16	2%-4%	2%-4%	3.5%-5.5%
Madrid	8-9	9-10	9-10	11-12	3%-4%	2%-3%	3%-4%
Milan	16-17	18-19	18-19	22-23	4%-5%	0%-1%	3%-4%
<b>Estimated gross tuition fees revenue (in thousands of USD)</b>							
Lisbon	80-96	114-126	138-150	240-276	10%-12%	11%-13%	11%-13%
Madrid	324-336	384-395	407-419	515-527	5%-6%	3%-4%	4%-5%
Milan	96-120	120-156	120-156	186-210	9%-10%	0%-1%	6%-8%

\*Based on constant 2015 prices; HH=household  
Source: L.E.K. research and analysis based on data from Oxford Economics

● Better than historic ● In line with historic ● Unfavourable compared to historic

## Overall growth in the premium segment across these top cities is expected to be driven by strong macroeconomic fundamentals, growing affluence and increasing adoption (2 of 9)

Europe	Enrolment forecast — Key parameters						
	AY2017	AY2020	AY2022	AY2027F	CAGR 2017-20	CAGR 2020-22	CAGR 2022-27F
<b>Local demand assessment</b>							
<b>Demographics: Relevant population (aged 3-18)</b>							
Barcelona	~0.8k	~0.8k	~0.8k	~0.8k	0-1%	0-1%	(1)-0%
Naples	~0.6k	~0.6k	0.6k	~0.5k	(2)-(-1)%	(3)-(-2)%	(2)%
Rome	~0.7k	~0.7k	0.6k	~0.6k	(1)-0%	(1)-0%	(1)-0%
London	~2.3M	~2.4M	~2.4M	~2.5M	1-2%	0-1%	0-1%
<b>Affordability*: Average HH disposable income (in thousands of USD)</b>							
Barcelona	~47	~47	~46	~49	0%-1%	(2)%-(-1)%	1%-2%
Naples	41-42	41-42	40-41	41-42	0%	(2)%-(-1)%	0%-1%
Rome	48-49	49-50	47-48	49-50	0%-1%	(1)%-0%	0%-1%
London	105-110	105-110	100-105	105-110	(1)%-0%	(3)%-(-2)%	1%-2%
<b>Adoption %</b>							
Barcelona	2-3	2-3	2-3	3-4	-	-	-
Naples	1-2	1-2	1-2	2-3	-	-	-
Rome	0-5	0-5	0-5	3-8	-	-	-
London	4-9	5-10	5-10	5-10	-	-	-
<b>Market enrolment potential (K)</b>							
Barcelona	6-7	6-7	6-7	7-8	1%-2%	0%	1%-2%
Naples	1-2	1-2	1-2	1-2	2%-3%	2%-3%	2%-3%
Rome	1.7-2.2	1.9-2.4	2.1-2.6	2.5-3.0	5%-7%	-0%	3%-4%
London	19-20	20-21	21-22	24-25	2%-3%	2%-3%	2%-3%
<b>Expat demand assessment</b>							
<b>FDI stock (in thousands of USD)</b>							
Barcelona	~772	~886	~777	~947	3%-4%	(6)%-(-5)%	3%-4%
Naples	~449	~530	~400	~507	5%-6%	(14)%-(-13)%	4%-5%
Rome	449	~530	~400	~507	5%-6%	(14)%-(-13)%	4%-5%
London	~2,324	~2,555	~2,182	~2,184	3%-4%	(8)%-(-7)%	5%-6%
<b>Market enrolment potential (K)</b>							
Barcelona	6-7	6-7	6-7	8-9	0%-1%	0%-1%	3%-4%
Naples	1-2	1-2	1-2	1-2	1%-2%	1%-2%	4%-5%
Rome	2-2.4	1.9-2.3	2.2-2.6	2.8-3.2	2%-3%	-0%	4%-5%
London	9-10	9-10	10-11	14-15	3%-4%	3%-4%	5%-6%

\*Based on constant 2015 prices; HH=household

Source: L.E.K. research and analysis based on data from Oxford Economics

● Better than historic 
 ● In line with historic 
 ● Unfavourable compared to historic

## Overall growth in the premium segment across these top cities is expected to be driven by strong macroeconomic fundamentals, growing affluence and increasing adoption (3 of 9)

Europe		Enrolment forecast — Key parameters					
	AY2017	AY2020	AY2022	AY2027F	CAGR 2017-20	CAGR 2020-22	CAGR 2022-27F
<b>Total demand assessment (K)</b>							
Barcelona	13-14	13.5-14.5	13-14	15-16	0%-1%	0%-1%	2%-3%
Naples	2-3	2-3	2-3	2-3	1%-2%	1%-2%	3%-4%
Rome	4-4.5	4-4.5	4.5-5.5	5.3-6.3	5%-6%	-0%	4%-5%
London	28-29	30-31	32-33	38-39	2%-3%	2%-3%	3%-4%
<b>Fee growth (in thousands of USD)</b>							
Barcelona	12-13	12.5-13.5	13-14	16-17	2%-3%	2%-3%	3%-4%
Naples	18-19	18-19	19-20	20-21	0%-1%	0%-1%	1%-2%
Rome	20-21	23-24	25-26	31-32	3%-4%	3%-4%	4%-5%
London	29-30	32-33	34-35	39-40	3%-4%	3%-4%	3%-4%
<b>Estimated gross tuition fees revenue (in millions of USD)</b>							
Barcelona	156-168	168-180	180-192	240-252	3%-4%	3%-4%	5%-7%
Naples	35-40	35-40	40-45	55-60	2%-3%	2%-3%	5%-6%
Rome	78-102	114-138	114-138	174-198	10%-11%	0%-1%	8%-10%
London	820-830	980-990	1,110-1,120	1,550-1,560	6%-7%	6%-7%	6%-7%

● Better than historic
 ● In line with historic
 ● Unfavourable compared to historic

Source: L.E.K. research and analysis based on data provided by Oxford Economics 2020 and data from Forbes

## Overall growth in the premium segment across these top cities is expected to be driven by strong macroeconomic fundamentals, growing affluence and increasing adoption (4 of 9)

South Africa		Enrolment forecast — Key parameters					
	AY2017	AY2020	AY2021	AY2026F	CAGR 2017-20	CAGR 2020-21	CAGR 2021-26F
<b>Demand Assessment</b>							
<b>Demographics: Relevant population (M) (aged 3-18)</b>							
Johannesburg	~2.4	~2.6	~2.7	~2.9	2%-3%	2%-3%	1%-2%
Cape Town	~1.1	~1.1	~1.2	~1.2	1%-2%	1%-2%	4%-5%
<b>Affordability*: Average HH disposable income (in thousands of USD)</b>							
Johannesburg	~17	~14	~14	~15	(5)%-(4)%	(2)%-(1)%	1%-2%
Cape Town	~20	~17	~17	~18	(5)%-(4)%	(1)%-0%	1%-2%
<b>Adoption %</b>							
Johannesburg	9-10	10-11	12-13	13-14	-	-	-
Cape Town	4-5	5-6	5-6	6-7	-	-	-
<b>Market enrolment potential (K)</b>							
Johannesburg	34-35	36-37	36-37	42-43	1%-2%	0%	2.5%-3.5%
Cape Town	13-14	14-15	14-15	18-19	2%-3%	2%-3%	4%-5%
<b>Fee growth (in thousands of USD)</b>							
Johannesburg	7-8	8-9	8-9	11-12	5%-6%	4%-5%	5%-6%
Cape Town	5-6	6-7	7-8	10-11	7%-8%	7%-8%	7%-8%
<b>Estimated gross tuition fees revenue (in millions of USD)</b>							
Johannesburg	240-265	312-324	324-336	491-503	6%-8%	4%-5%	8%-9%
Cape Town	72-84	96-108	108-120	192-204	9%-10%	7%-8%	12%-13%

● Better than historic
 ● In line with historic
 ● Unfavourable compared to historic

\*Based on constant 2015 prices; HH=household  
Source: L.E.K. research and analysis based on data from Oxford Economics

## Overall growth in the premium segment across these top cities is expected to be driven by strong macroeconomic fundamentals, growing affluence and increasing adoption (5 of 9)

Middle East	Enrolment forecast — Key parameters						
	AY2017	AY2020	AY2022	AY2027F	CAGR 2017-20	CAGR 2020-22	CAGR 2022-27F
<b>Local demand assessment</b>							
Demographics: Relevant population (K) (aged 3-18)							
Bahrain	~293	~286	~304	~304	(1)%-0%	3%-4%	0%-1%
Dubai	~854	~906	~901	~990	1%-2%	(1)%-0%	1%-2%
Abu Dhabi	~357	~423	~421	~509	5%-6%	(1)%-0%	3%-4%
Doha	~135	~141	~152	~164	1%-2%	(2)%-(1)%	0%-1%
Affordability*: Average HH disposable income (in thousands of USD)							
Bahrain	62-63	62-63	60-61	61-62	0%	(2)%-(1)%	0%-1%
Dubai	135-136	151-152	166-167	178-179	3%-4%	4%-5%	1%-2%
Abu Dhabi	165-170	200-205	215-220	235-240	5%-6%	3%-4%	1%-2%
Doha	130-140	140-150	150-160	160-170	1%-2%	4%-5%	1%-2%
Adoption %							
Bahrain	5-10	5-10	5-10	10-15	-	-	-
Dubai	1-6	1-6	1-6	1-6	-	-	-
Abu Dhabi	2-7	2-7	2-7	2-7	-	-	-
Doha	5-10	10-15	10-15	20-25	-	-	-
Market enrolment potential (K)							
Bahrain	3.5-4.5	4.5-5.5	4.5-5.5	6-7	6%-7%	0%-1%	4.5%-5.5%
Dubai	8-9	10-11	12-13	18-19	14%-15%	6%-7%	8%-9%
Abu Dhabi	8-9	10-11	12-13	20-21	8%-9%	10%-11%	9%-10%
Doha	3-3.5	4.5-5	5-5.5	9.5-10	11%-12%	7%-8%	12%-13%
<b>Expat demand assessment</b>							
FDI stock (in billions of USD)							
Bahrain	~27	~30	~28	~32	4%-5%	(4)%-(3)%	2%-3%
Dubai	~141	~175	~129	~250	7%-8%	(15)%-(14)%	14%-15%
Abu Dhabi	~141	~175	~129	~250	7%-8%	(15)%-(14)%	14%-15%
Doha	~42	~39	~45	~53	(4)%-(3)%	7%-8%	3%-4%
Market enrolment potential (K)							
Bahrain	4-5	4.5-5.5	4.5-5.5	5-6	3%-4%	(3)%-(2)%	1%-2%
Dubai	78-79	90-91	91-92	105-106	4%-5%	0%-1%	3%-4%
Abu Dhabi	18-19	21-22	21-22	24-25	4%-5%	(1)%-0%	3%-4%
Doha	8-9	10-11	9-10	12-13	5%-6%	(6)%-(5)%	6%-7%

\*Based on constant 2015 prices; HH=household

Source: L.E.K. research and analysis based on data from Oxford Economics

● Better than historic 
 ● In line with historic 
 ● Unfavourable compared to historic

## Overall growth in the premium segment across these top cities is expected to be driven by strong macroeconomic fundamentals, growing affluence and increasing adoption (6 of 9)

Middle East	Enrolment forecast — Key parameters						
	AY2017	AY2020	AY2022	AY2027F	CAGR 2017-20	CAGR 2020-22	CAGR 2022-27F
<b>Total demand assessment (K)</b>							
Bahrain	8-9	9-10	9-10	11-12	5%-6%	(2)%-(1)%	3%-4%
Dubai	85-86	100-101	103-104	124-125	5%-6%	1%-2%	3%-4%
Abu Dhabi	27-28	32-33	33-34	44-45	5%-6%	2%-3%	5%-6%
Doha	12-13	14-15	14-15	22-23	7%-8%	(1)%-0%	8%-9%
<b>Fee growth (in thousands of USD)</b>							
Bahrain	12-13	13-14	14-15	16-17	2%-3%	0%-1%	3%-4%
Dubai	16-17	17-18k	18-19	21-22	1%-2%	1%-2%	3%-4%
Abu Dhabi	12-13	14-15	15-16	20-21	4%-5%	2%-3%	5%-6%
Doha	17-18	17-18	17-18	20-21	0%-1%	0%-1%	2%-3%
<b>Estimated gross tuition fees revenue (in millions of USD)</b>							
Bahrain	108-120	132-144	132-144	174-210	7%-8%	(1)%-0%	6%-8%
Dubai	1,400-1,420	1,740-1,760	1,860-1,880	2,660-2,680	5%-6%	3%-4%	7%-8%
Abu Dhabi	340-360	460-480	510-530	890-910	10%-11%	5%-6%	11%-12%
Doha	210-230	260-280	260-280	440-460	7%-8%	(1)%-0%	11%-12%

● Better than historic 
 ● In line with historic 
 ● Unfavourable compared to historic

Source: L.E.K. research and analysis based on data from Oxford Economics

## Overall growth in the premium segment across these top cities is expected to be driven by strong macroeconomic fundamentals, growing affluence and increasing adoption (7 of 9)

APAC	Enrolment forecast — Key parameters						
	AY2017	AY2020	AY2021	AY2026F	CAGR 2017-20	CAGR 2020-21	CAGR 2021-26F
<b>Demand Assessment</b>							
<b>Demographics: Relevant population (M) (aged 3-18)</b>							
Auckland	~0.351	~0.360	~0.359	0.36-0.38	0%-1%	(1)%-0%	0%-1%
Sydney	~1.0	~1.0	~1.0	~1.1	1%-2%	0%-1%	1%-2%
Adelaide	~0.3	~0.3	~0.3	~0.3	0%-1%	0%-1%	0%-1%
Melbourne	~0.9	~1.0	~1.0	~1.0	2%-3%	0%-1%	1%-2%
<b>Affordability*: Average HH disposable income (in thousands of USD)</b>							
Auckland	~74	~73	~76	~82	(1)%-0%	5%-6%	1%-2%
Sydney	~108	~111	~106	~107	0%-1%	(5)%-(4)%	0%-1%
Adelaide	~87	~88	~83	~87	0%-1%	(6)%-(5)%	0%-1%
Melbourne	~85	~86	~81	~88	0%-1%	(6)%-(5)%	1%-2%
<b>Adoption %</b>							
Auckland	10-13	12-15	12-15	15-18	-	-	-
Sydney	20-25	22-27	22-27	32-37	-	-	-
Adelaide	18-23	20-25	25-30	27-32	-	-	-
Melbourne	52-57	57-62	73-79	75-80	-	-	-
<b>Market enrolment potential (K)</b>							
Auckland	12-13	13-14	13.5-14.5	16-17	3%-4%	3%-4%	3%-4%
Sydney	41-45	44-48	45-49	48-52	1%-2%	1%-2%	1%-2%
Adelaide	7-8	7-8	7-8	8-9	1%-2%	1%-2%	2%-3%
Melbourne	45-49	47-51	48-52	52-56	1%-2%	1%-2%	1.5%-2.5%
<b>Fee growth (in thousands of USD)</b>							
Auckland	14-15	15-16	15-16	18-19	3%-4%	2%-3%	3%-4%
Sydney	20-24	24-28	24-28	28-32	3.5%-4.5%	1%-2%	3.5%-4.5%
Adelaide	14-18	15-19	15-19	18-22	2%-3%	1%-2%	2%-3%
Melbourne	20-21	23-24	23-24	28-29	3.5%-4.5%	0%-1%	3.5%-4.5%
<b>Estimated gross tuition fees revenue (in millions of USD)</b>							
Auckland	168-180	204-216	216-228	300-325	5%-7%	6%-8%	5%-7%
Sydney	900-1,020	1,080-1,120	1,140-1,260	1,500-1,620	5%-6%	3%-4%	5%-6%
Adelaide	110-120	120-130	130-140	170-180	3%-4%	2%-3%	5%-6%
Melbourne	900-1,000	1080-1,120	1,140-1,260	1,500-1,620	5%-6%	2%-3%	5%-7%

\*Based on constant 2015 prices; HH=household

Source: L.E.K. research and analysis based on data from Oxford Economics

● Better than historic
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## Overall growth in the premium segment across these top cities is expected to be driven by strong macroeconomic fundamentals, growing affluence and increasing adoption (8 of 9)

APAC	Enrolment forecast — Key parameters						
	AY2017	AY2020	AY2022	AY2027F	CAGR 2017-20	CAGR 2020-22	CAGR 2022-27F
<b>Local demand assessment</b>							
Demographics: Relevant population (M) (aged 3-18)							
Ho Chi Minh City	~1.6	~1.7	~1.8	~2	2%-3%	2%-3%	2%-3%
Hanoi	~1.6	~1.6	~1.7	~1.7	0%-1%	0%-1%	0%-1%
Singapore	-	-	-	-	-	-	-
Affordability*: Average HH disposable income (in thousands of USD)							
Ho Chi Minh City	~9	~11	~12	~16	7%-8%	5%-6%	4%-5%
Hanoi	~9	~10	~11	~14	4%-5%	1%-2%	4%-5%
Singapore	-	-	-	-	-	-	-
Adoption %							
Ho Chi Minh City	45-46	54-55	44-45	42-43	-	-	-
Hanoi	60-61	61-62	62-63	64-65	-	-	-
Singapore	-	-	-	-	-	-	-
Market enrolment potential (in thousands of USD)							
Ho Chi Minh City	2-2.5	3-3.5	3.5-4	6-7	10%-11%	7%-8%	11%-13%
Hanoi	0.5-1	1-2	1-2	2-3	11%-12%	7%-8%	12%-13%
Singapore	-	-	-	-	-	-	-
<b>Expat demand assessment</b>							
FDI stock (in billions of USD)							
Ho Chi Minh City	~153	~183	~200	~262	6%-7%	4%-5%	5%-6%
Hanoi	~153	~183	~200	~262	6%-7%	4%-5%	5%-6%
Singapore	~764	~1,005	~952	~1,460	9%-10%	(3)%-(2)%	8%-9%
Market enrolment potential (K)							
Ho Chi Minh City	4-4.5	5-5.5	4.5-5	5-6	8%-9%	(9)%-(8)%	5%-6%
Hanoi	1-2	2-3	2-3	3-4	13%-14%	(9)%-(7)%	5%-6%
Singapore	27-28	28-29	28-29	31-32	1%-2%	(2)%-(1)%	2%-3%
<b>Total demand assessment (K)</b>							
Ho Chi Minh City	6-7	8-9	8-9	12-13	9%-10%	(3)%-(2)%	8%-9%
Hanoi	2-3	4-5	3-4	~6	12%-13%	(2)%	8%-9%
Singapore	27-28	28-29	28-29	31-32	1%-2%	(2)%-(1)%	2%-3%
Fee growth (in thousands of USD)							
Ho Chi Minh City	20-21	25-26	26-27	36-37	5%-6%	4%-5%	6%-7%
Hanoi	23-24	24-25	26-27	31-32	3%-4%	2%-3%	3%-4%
Singapore	27-28	29-30	30-31	33-34	2%-3%	2%-3%	2%-3%
Estimated gross tuition fees revenue (in millions of USD)							
Ho Chi Minh City	132-144	215-228	215-228	455-467	16%-17%	1%-2%	14%-16%
Hanoi	60-72	84-96	108-120	180-192	10%-11%	7%-8%	12%-13%
Singapore	730-750	830-850	850-870	1,050-1,100	4%-5%	0%-1%	4%-5%

\*Based on constant 2015 prices; HH=household  
Source: L.E.K. research and analysis based on data from Oxford Economics

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 ● Unfavourable compared to historic

# Overall growth in the premium segment across these top cities is expected to be driven by strong macroeconomic fundamentals, growing affluence and increasing adoption (9 of 9)

APAC	Enrolment forecast — Key parameters						
	AY2017	AY2020	AY2022	AY2027F	CAGR 2017-20	CAGR 2020-22	CAGR 2022-27F
<b>Local demand assessment</b>							
Demographics: Relevant population (M) (aged 3-18)							
Kuala Lumpur	~1.6	~1.6	~1.6	~1.7	(1)%-0%	0%-1%	0%-1%
Johor Bahru	~0.4	~0.4	~0.4	~0.4	(1)%-0%	(1)%-0%	(1)%-0%
Penang	~0.1	~0.1	~0.1	~0.1	(1)%-0%	(1)%-0%	(1)%-0%
Affordability*: Average HH disposable income (in thousands of USD)							
Kuala Lumpur	~30	~32	~32	~39	3%-4%	(2)%-(1)%	4%-5%
Johor Bahru	~18	~19	~19	~23	1%-2%	(1)%-0%	4%-5%
Penang	~25	~27	~26	~32	1%-2%	(2)%-(1)%	3%-4%
Adoption %							
Kuala Lumpur	6-7	7-8	~9	9-10	-	-	-
Johor Bahru	9-10	11-12	11-12	10-11	-	-	-
Penang	2-3	2-3	2-3	2-3	-	-	-
Market enrolment potential (K)							
Kuala Lumpur	12-13	14-15	15-16	19-20	6%-7%	1%-2%	4%-5%
Johor Bahru	0.9-1	1.1-1.2	0.9-1	1.2-1.3	4%-5%	(7)%-(6)%	4%-5%
Penang	0.6-0.7	0.7-0.8	0.6-0.7	0.8-0.9	5%-6%	(7)%-(6)%	6%-7%
<b>Expat demand assessment</b>							
FDI stock (in billions of USD)							
Kuala Lumpur	~222	~246	~245	~293	3%-4%	(1)%-0%	3%-4%
Johor Bahru	~222	~246	~245	~293	3%-4%	(1)%-0%	3%-4%
Penang	~222	~246	~245	~293	3%-4%	(1)%-0%	3%-4%
Market enrolment potential (K)							
Kuala Lumpur	10-11	11-12	10-11	12-13	5%-6%	(5)%-(4)%	2%-3%
Johor Bahru	1.2-1.3	1.5-1.6	1.4-1.5	2.1-2.2	7%-8%	(2)%-(1)%	8%-9%
Penang	1.3-1.4	1.7-1.8	1.7-1.8	2.7-2.8	8%-9%	0%-1%	9%-10%
<b>Total demand assessment (K)</b>							
Kuala Lumpur	22-23	26-27	~26	~32	6%-7%	(1)%-0%	4%-5%
Johor Bahru	2.2-2.3	2.6-2.7	2.4-2.5	3.3-3.4	6%-7%	(4)%-(3)%	6%-7%
Penang	2-2.2	2.5-2.7	2.4-2.6	3.6-3.8	7%-8%	(2)%-(1)%	8%-9%
Fee growth (in thousands of USD)							
Kuala Lumpur	13-14	14-15	15-16	18-19	3%-4%	3%-4%	4%-5%
Johor Bahru	16-17	17-18	18-19	21-22	2%-3%	2%-3%	3%-4%
Penang	11-12	12-13	12-13	14-15	2%-3%	2%-3%	3%-4%
Estimated gross tuition fees revenue (in millions of USD)							
Kuala Lumpur	280-300	370-390	380-400	580-600	9%-10%	2%-3%	8%-9%
Johor Bahru	35-40	45-50	45-50	70-75	8%-9%	(2)%-(1)%	10%-11%
Penang	20-25	30-35	30-35	50-55	10%-11%	0%-1%	11%-12%

\*Based on constant 2015 prices; HH=household  
Source: L.E.K. research and analysis based on data from Oxford Economics

● Better than historic 
 ● In line with historic 
 ● Unfavourable compared to historic

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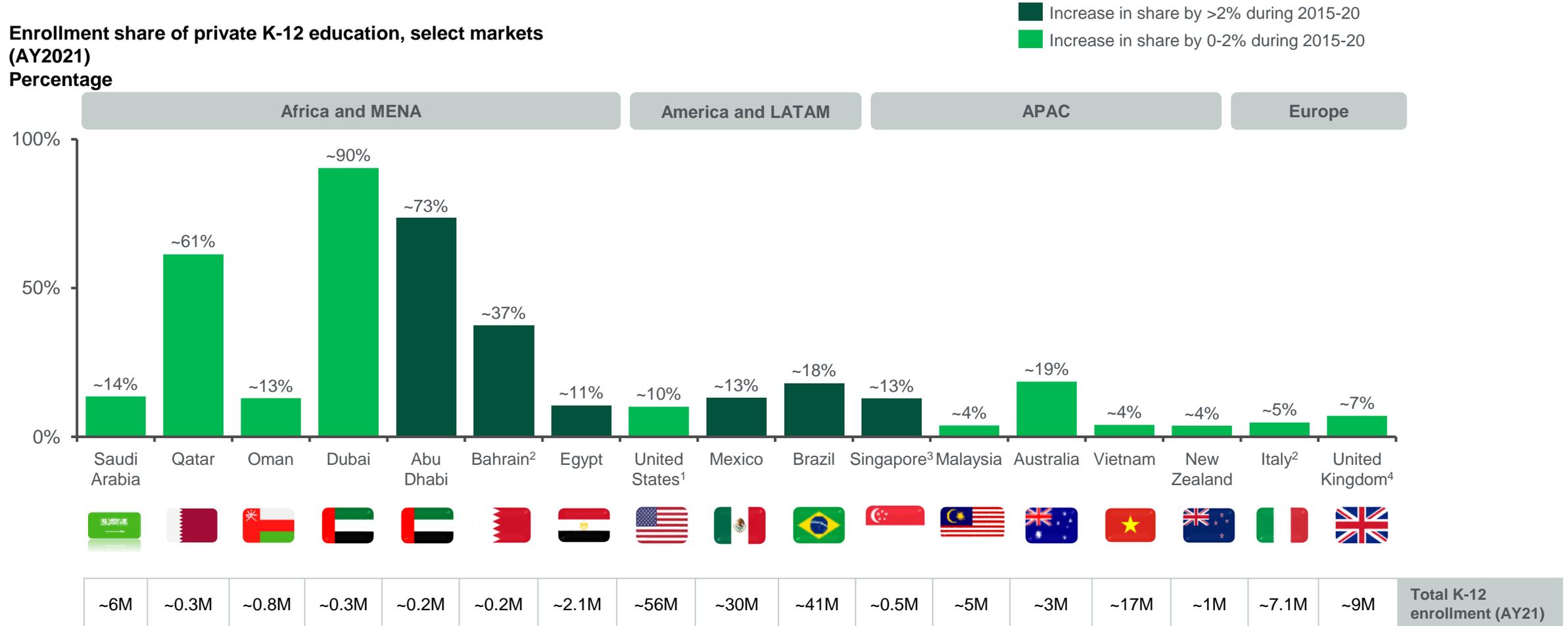
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# Private K-12 has gained share over public schools across major markets between 2015-20

Enrollment share of private K-12 education, select markets (AY2021)  
Percentage



Note: Major markets globally depicted based on data availability; <sup>1</sup>Data available for AY15-20 for US; <sup>2</sup>Data available for AY15-19 for Bahrain, Italy; <sup>3</sup>Data available for AY17-20 for Singapore; <sup>4</sup>Data available for AY14-21 for UK

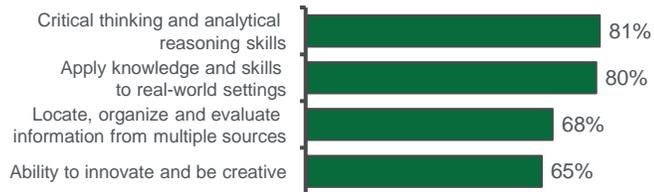
Source: L.E.K. research and analysis

# The attractiveness of private K-12 is underpinned by secular growth drivers

## 1 Demand for holistic development

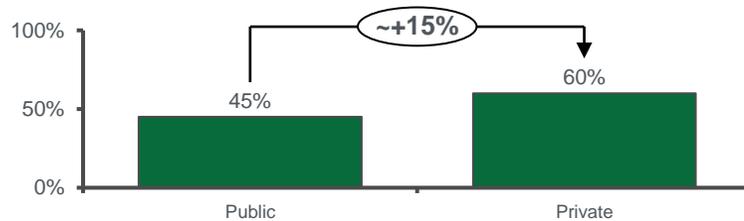
As per a nationwide survey conducted in 2018 in the US, college learning outcomes are rated 'very important' by employers

College learning outcomes rated very important by employers  
Percentage of employers rated (N=400) (2018)



Private schools are typically better equipped than public schools to inculcate 21<sup>st</sup>-century skills

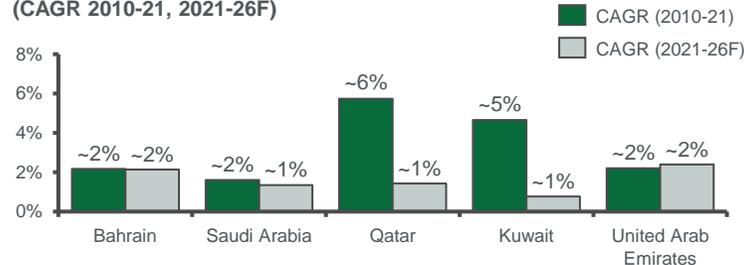
Percentage students at or above proficient in Technology and Engineering Literacy  
Percentage



## 2 Rising affluence in emerging markets

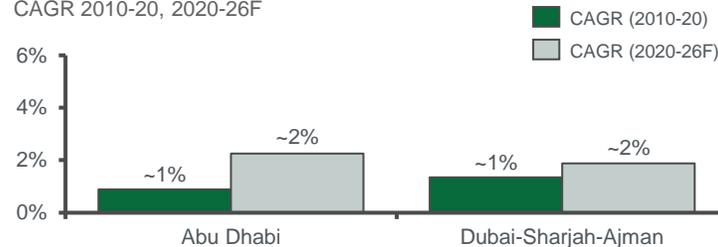
Middle class households on average have grown at 2%-6% CAGR between 2010 and 2021 across GCC markets and are expected to grow at 1%-2% CAGR in the next 5 years

Middle class households growth<sup>1</sup>, select emerging markets (CAGR 2010-21, 2021-26F)



Average household disposable income has grown at ~1% CAGR between 2010 and 2020 in key UAE markets and is forecast to grow at ~2% CAGR till 2026

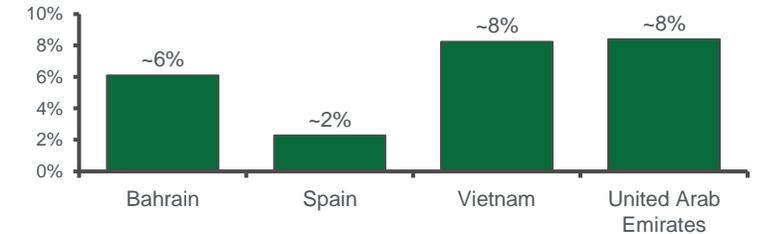
Avg. household income growth, Dubai and Abu Dhabi (CAGR 2010-20, 2020-26F)



## 3 Rising expat population

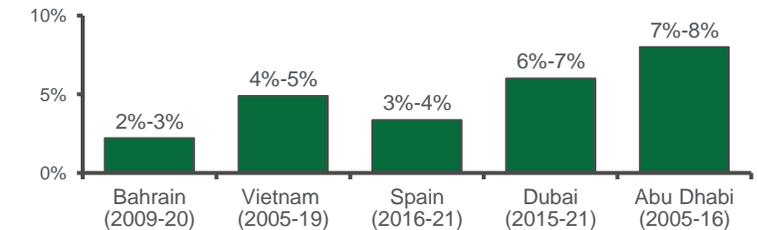
Increasing foreign direct investment (FDI) across many emerging markets has led to the growth of expats in markets

Foreign direct investment growth, select emerging markets (CAGR 2010-21)



The growing expat population across many emerging markets has led to the growth of private education as private schools are the only viable option for expats

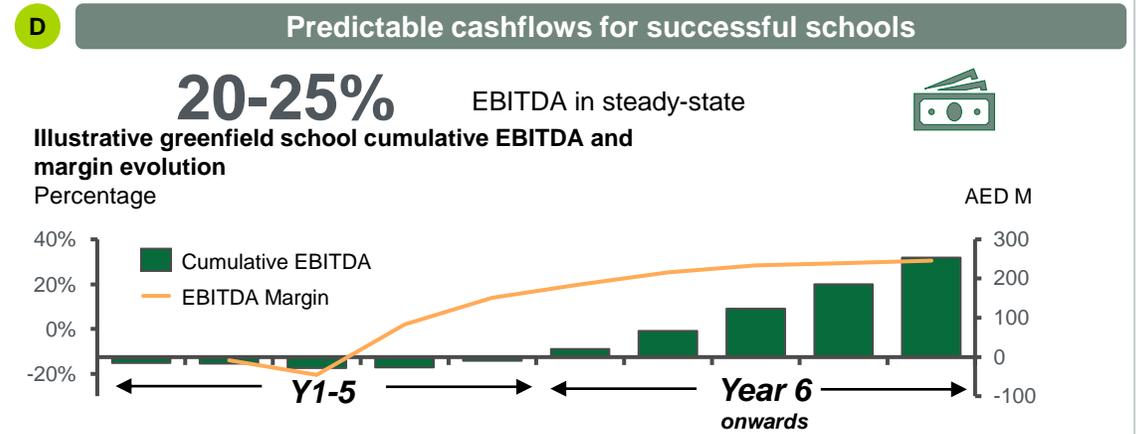
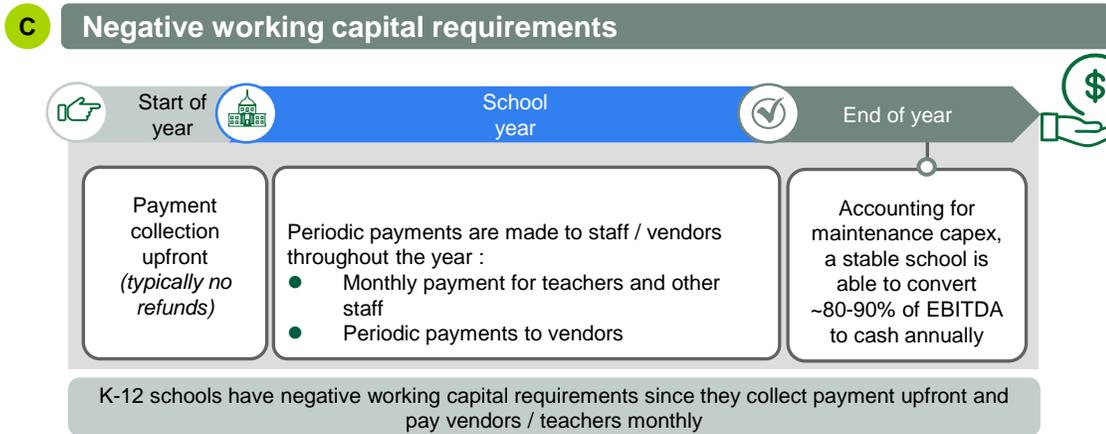
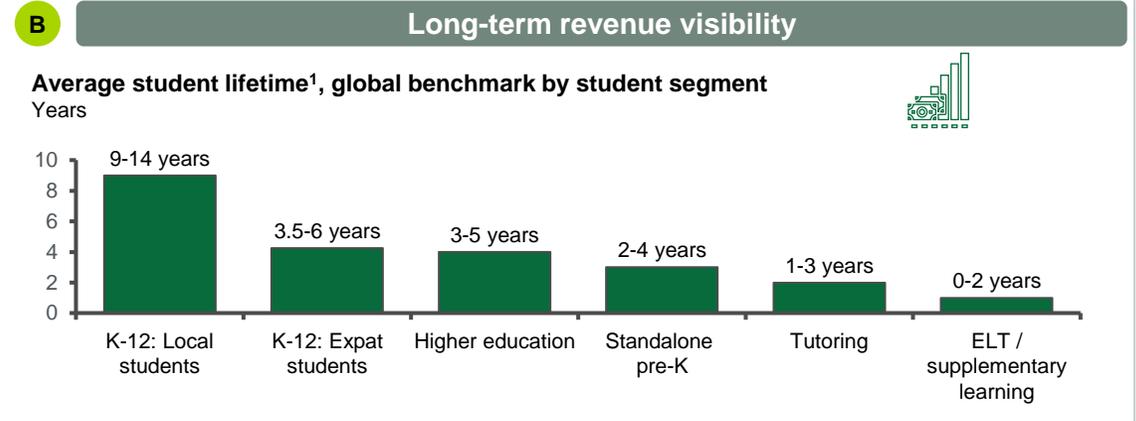
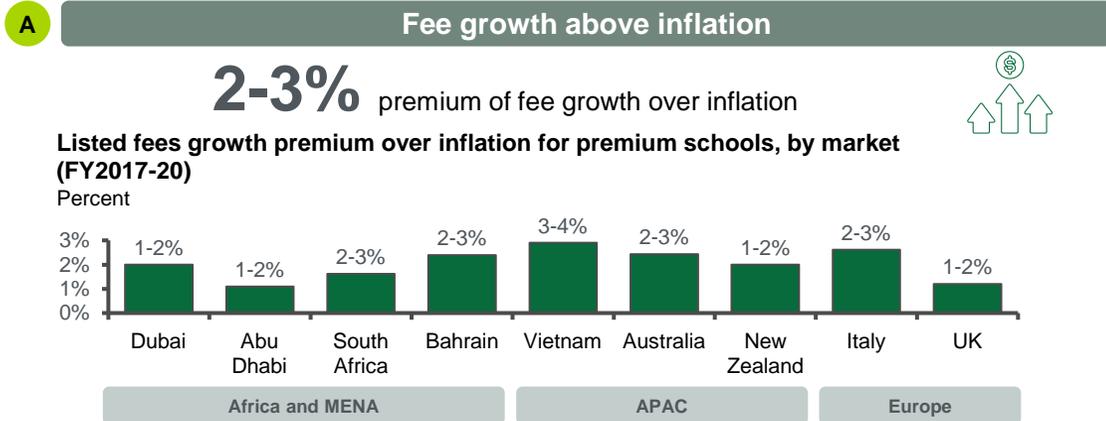
Growth in expat population, select emerging markets (CAGR)



Note: <sup>1</sup>We define the middle class in developed economies as comprising households with an annual disposable income of AED 164,783-AED 366,523 (in constant, purchasing power parity (PPP) terms). In emerging and developing economies, due to lower costs of living, we consider households with a lower income of AED 55,050-AED 166,985 (in constant, PPP terms) as belonging to the middle class  
Source: L.E.K. research and analysis

# High barriers to entry and robust business model further leads to the attractiveness of private K-12

## Attractive financial profile

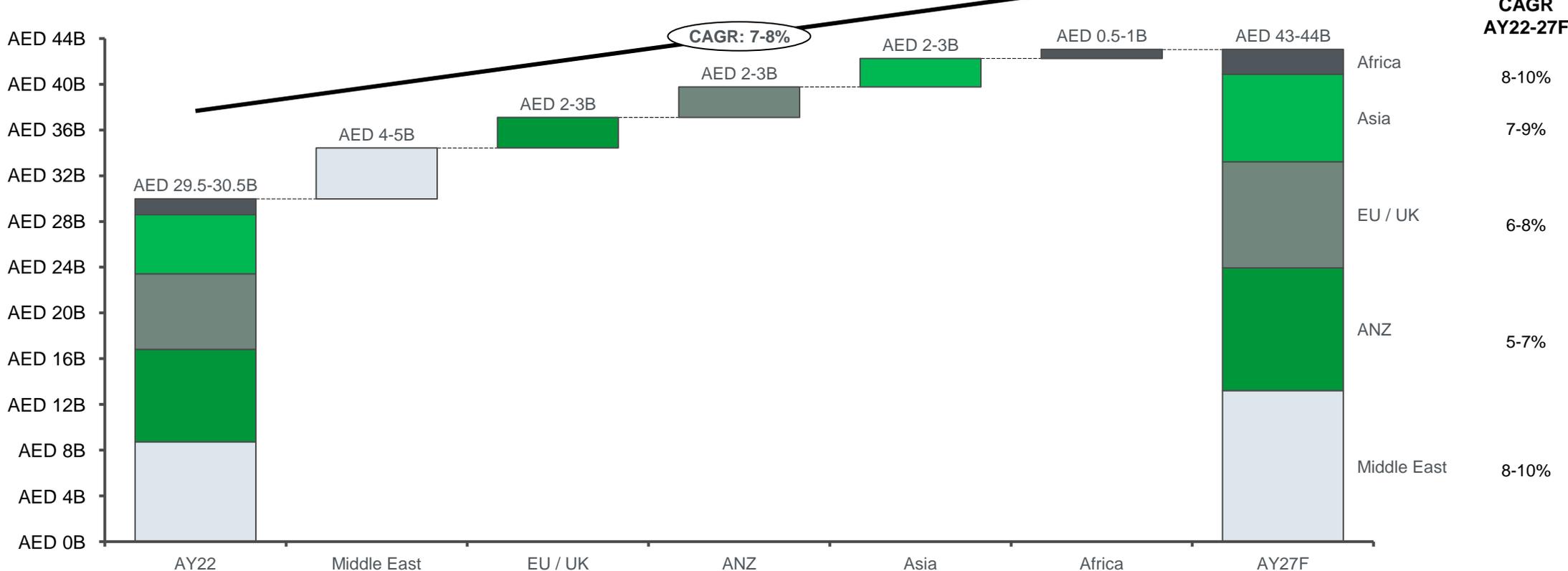


Note: <sup>1</sup>Global average student lifetime  
Source: L.E.K. research and analysis based on data from school websites, market participant discussions and secondary research

The Premium K-12 segment is estimated to grow at a CAGR of 7-8% and reach a revenue scale of AED 43-44B by AY27F; Middle-East is estimated to grow the fastest globally between AY22-27F

Premium K-12 market-size waterfall by region (AY22-27F)

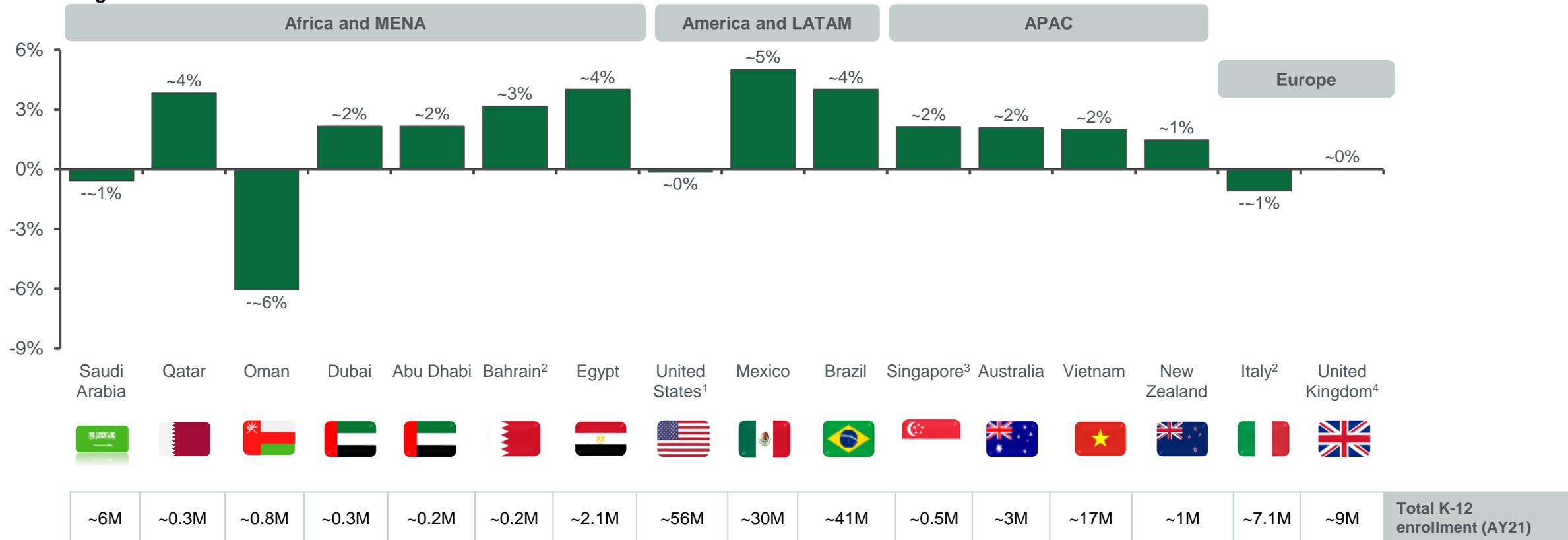
Billions of AED



Note: Market Size Estimation only covers top 20-25 cities across regions; methodology based on demographics, affordability and penetration trends from L.E.K. Thought Leadership  
 Source: L.E.K. research and analysis based on school websites, market participant discussions

# GCC is one of the fastest growing K-12 markets

Enrollment growth of private K-12 education, select markets (AY2015-AY2021)  
Percentage



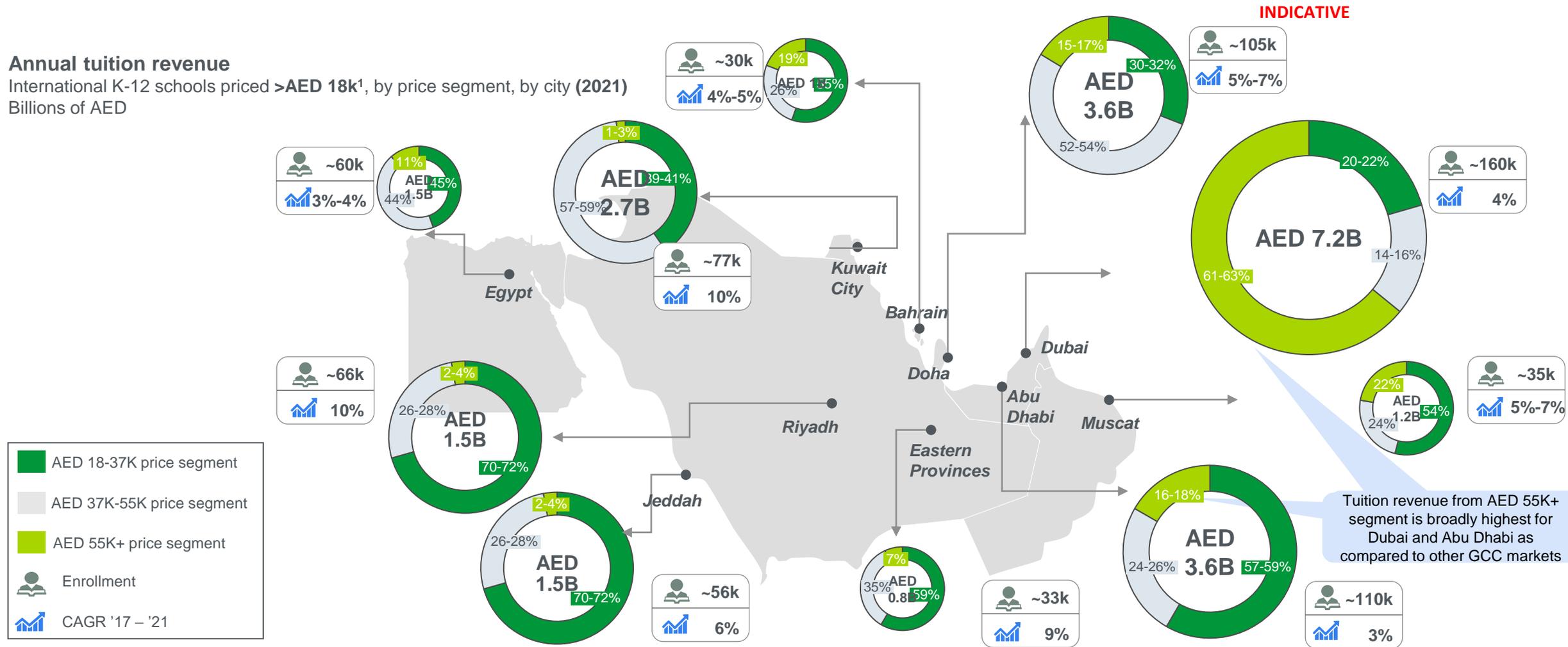
Note: Major markets globally depicted based on data availability; <sup>1</sup>AY15-20 CAGR available for US; <sup>2</sup>AY15-19 CAGR available for Bahrain, Italy; <sup>3</sup>AY17-20 CAGR available for Singapore; <sup>4</sup>AY14-21 CAGR available for UK

Source: L.E.K. research and analysis

# Key markets across GCC present a large and attractive opportunity; Dubai is the largest K-12 market in the region, followed by Abu Dhabi, Doha, and Kuwait

## Annual tuition revenue

International K-12 schools priced >AED 18k<sup>1</sup>, by price segment, by city (2021)  
Billions of AED



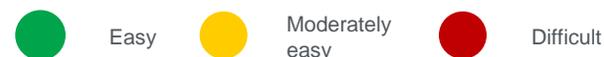
Note: <sup>1</sup>Excludes schools priced below AED 18K, Data mentioned for KSA and Kuwait corresponds to AY19 and AY16-19, Data for Doha, Bahrain, and Muscat corresponds to AY20 and AY17-20  
Source: L.E.K. research and analysis

# In addition to UAE, markets such as KSA and Egypt also present attractive opportunities for growth due to favourable regulations, large relevant age population, significant headroom for growth due to low private adoption



	Saudi Arabia	Egypt	Kuwait	Qatar	Oman
Relevant age population	~7m	~25m	~0.7m	~0.3m	~0.8m
Private K-12 enrollment AY21 (millions of students)	~0.8m	~0.2m	~0.3m	~0.2m	~0.1m
Private K-12 enrollment CAGR (AY15-20)	~1%	~6%	~2%	~5%	~4%
Private K-12 share (AY21)	~14%	~11%	~39%	~61%	~13%
Regulatory overview	●	●	●	●	●
Overall assessment	●	●	●	●	●
Key considerations	<ul style="list-style-type: none"> <li>• Large relevant age population</li> <li>• Headroom to grow as private adoption is &lt;20% and has better outcomes</li> <li>• Favorable regulation</li> </ul>	<ul style="list-style-type: none"> <li>• Large relevant age population</li> <li>• Headroom to grow as private adoption is &lt;10% and has better outcomes</li> <li>• Apart from fee, regulation is favorable</li> </ul>	<ul style="list-style-type: none"> <li>• High private K-12 adoption; however strong relevant segment growth</li> <li>• Regulation is moderately favorable</li> </ul>	<ul style="list-style-type: none"> <li>• High private adoption, however strong relevant segment growth</li> <li>• Regulation is moderately favorable</li> <li>• Access to land and high rentals are key challenges</li> </ul>	<ul style="list-style-type: none"> <li>• Moderately high private adoption; moderate relevant segment growth</li> <li>• Regulation is moderately favorable as fee growth is allowed only once in two years</li> </ul>

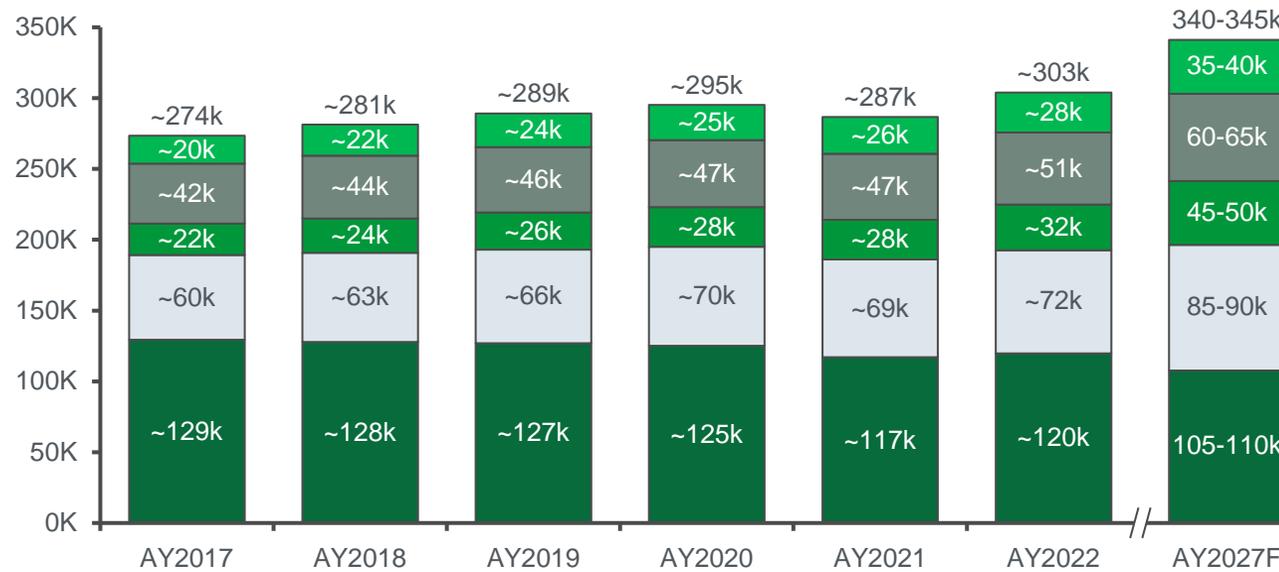
Source: L.E.K. research and analysis based on secondary published sources



# The overall Dubai private K-12 market is expected to grow at 2-2.5% CAGR in the AY22-27F period; Super-premium and Premium+ segments are expected to grow at ~4.5-5% CAGR during the period

Dubai K-12 enrolment, by price segment (AY2017,20-22,27F)

Number of students



	CAGR (AY17-20)	CAGR (AY20-22)	CAGR (AY17-22)	CAGR (AY22-27F)	Incremental enrol. (AY17-22)	Incremental enrol. (AY22-27F)
<b>Total</b>	2.5-3%	1-1.5%	2-2.5%	2-2.5%	5.9-6.1k	7.4-7.6k
<b>Super-Premium, and Premium+</b>	4.5-5.5%	4.5-5%	4.5-5%	4.5-5%	3.3-3.5k	4.1-4.3k
Super-premium (AED: >75k)	7-8%	6.5-7%	7-7.5%	6.5-7%	1.6-1.8k	2-2.2k
Premium+ (AED: 55-75k)	3.5-4%	3.5-4%	3.5-4%	3.5-4%	1.6-1.8k	2-2.2k
Premium- (AED: 35-55k)	7.5-8%	6.5-7%	7.5-8%	6.5-7%	1.9-2.1k	2.4-2.6k
Mid-priced (AED: 18-35k)	5-5.5%	2-2.5%	3.5-4%	4-4.5%	2.4-2.7k	3.1-3.3k
Budget (AED: <18k)	(1-1.5%)	(2-2.5%)	(1.5-2%)	(2-2.5%)	(1.8-2k)	(2.3-2.5k)
<b>Premium-, Mid-priced, Budget</b>	1.5-2%	0-0.5%	1-1.5%	1-1.5%	2.5-2.7k	3.4-3.6k

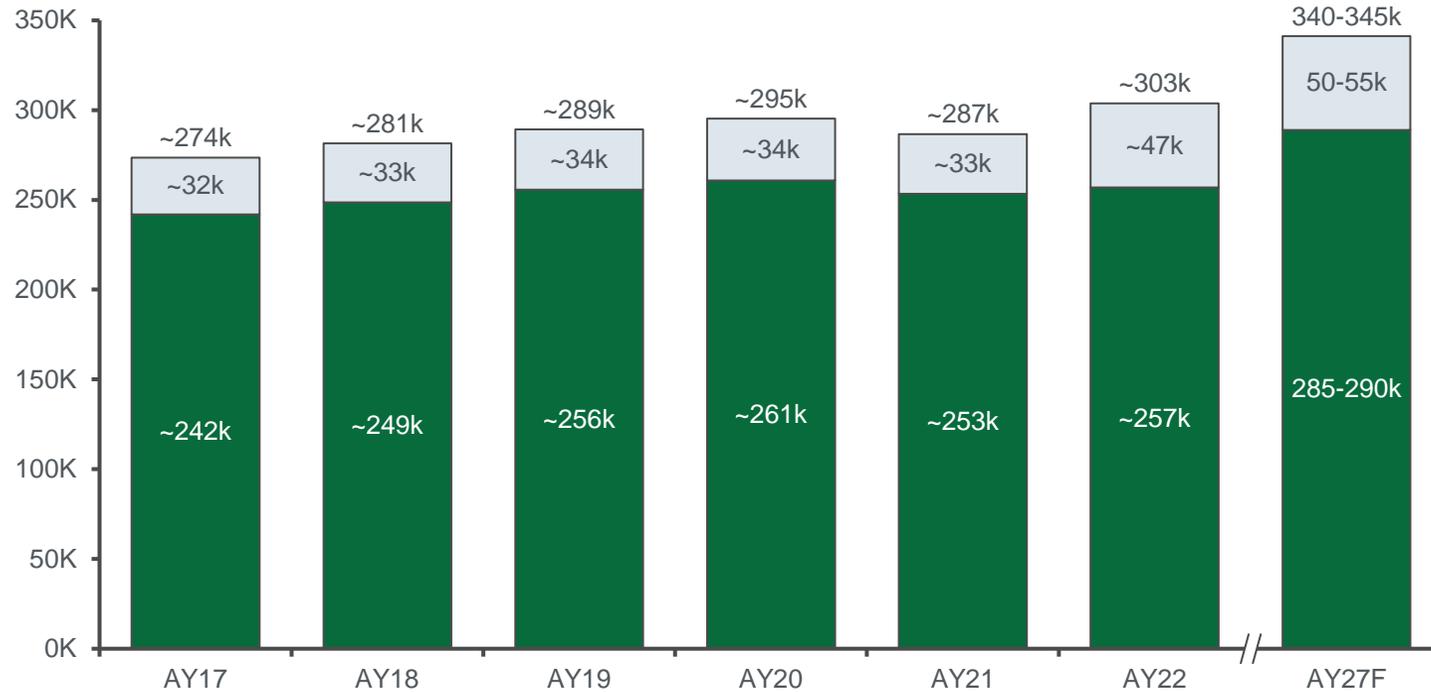
**Market share gain/loss**

-	0.6%	0.4%	0.2%	0.6%	0.3%	→	0.4%	Super-premium
-	0.3%	0.2%	0.1%	0.2%	0.5%	→	0.3%	Premium+
-	0.6%	0.4%	0.3%	0.3%	0.7%	→	0.5%	Premium-
-	0.4%	0.5%	0.8%	0.4%	(0.1%)	→	0.4%	Mid-Priced
-	(1.9%)	(1.5%)	(1.5%)	(1.6%)	(1.4%)	→	(1.6%)	Budget

Note: Forecast based on historical share gain/loss  
 Source: L.E.K. research and analysis based on Dubai Private Schools Open Data @ copyright KHDA 2022. All rights reserved

# Local and Expat enrolments are expected to grow at 2-2.5% CAGR in Dubai during AY22-27F; Majority of the incremental enrollment is expected to be contributed by expats

Dubai K-12 private enrolment, by nationality  
(AY2017,20-22,27F)  
Number of students



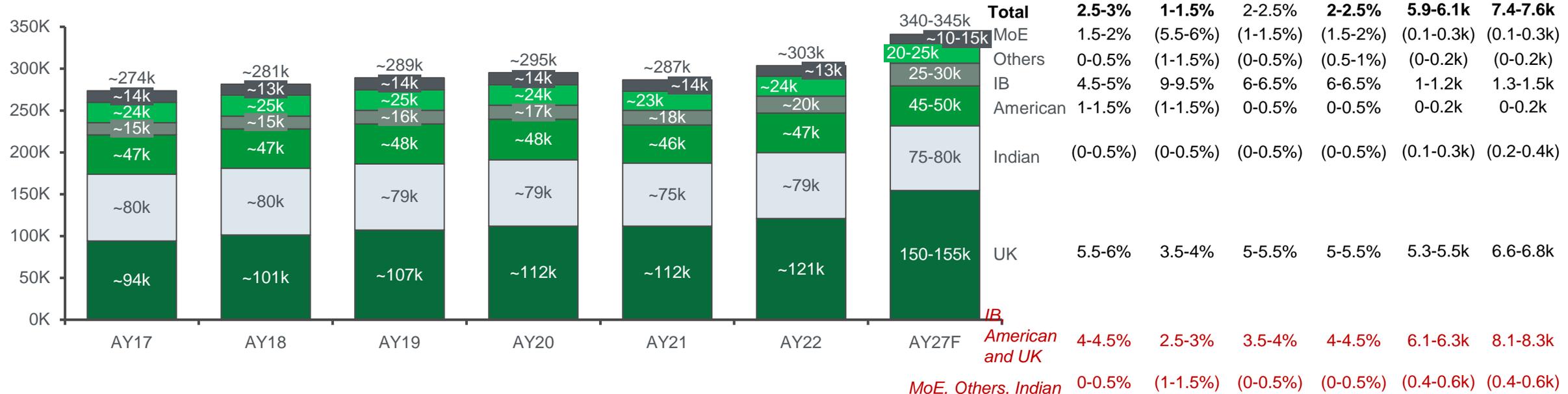
	CAGR (AY17-20)	CAGR (AY20-22)	CAGR (AY22-27F)	Incremental enrol. (AY17-22)	Incremental enrol. (AY22-27F)
<b>Total</b>	<b>2.5-3%</b>	<b>1-1.5%</b>	<b>2-2.5%</b>	<b>5.9-6.1k</b>	<b>7.4-7.6k</b>
Locals	2.5-3%	16.5-17%	2-2.5%	2.9-3.1k	1-1.2k
Expats	2.5-3%	(0.5-1%)	2-2.5%	2.9-3.1k	6.3-6.5k

88.4%	88.3%	88.4%	88.3%	88.4%	84.6%	84.7%	<b>Share of expats in private</b>
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Note: Forecast based on historical share gain/loss  
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# At an overall Dubai market level, IB and UK curricula are expected to grow faster than the market at 5-6% CAGR during AY22-27F while American curriculum is expected to remain flat

Dubai K-12 enrolment, by curriculum  
(AY2017,20-22,27F)  
Number of students



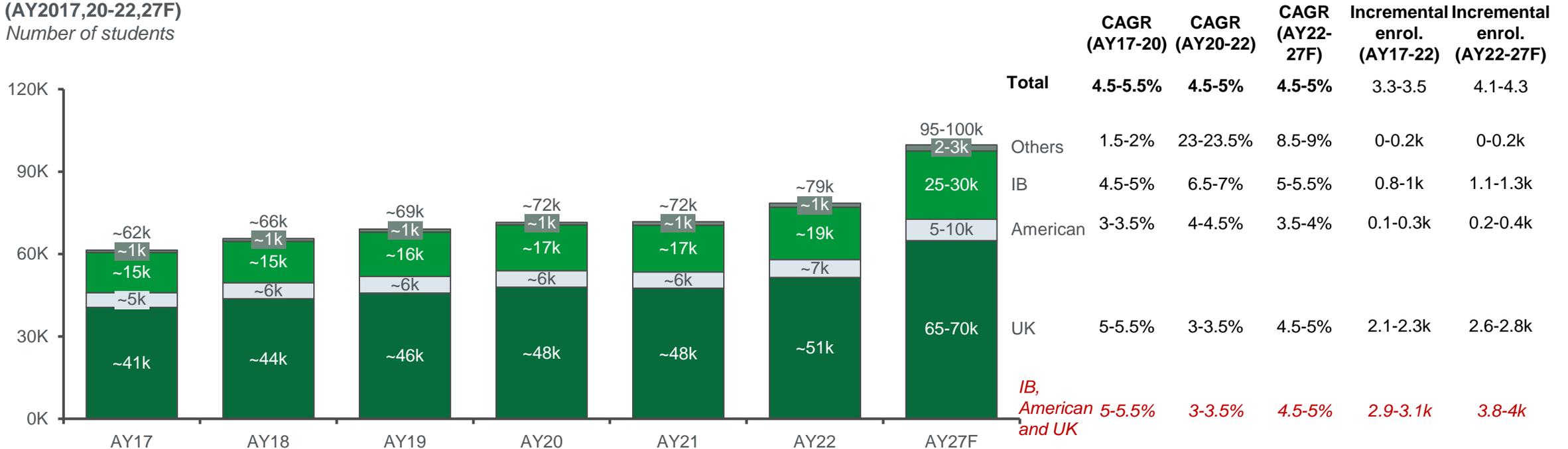
**Market share gain/loss**

-	-0.30%	0.30%	-0.10%	-0.10%	-0.50%	→	-0.20%	MoE
-	0.00%	-0.40%	-0.30%	-0.40%	-0.10%	→	-0.20%	Others
-	0.00%	0.20%	0.10%	0.40%	0.50%	→	0.30%	IB
-	-0.50%	-0.20%	-0.10%	-0.50%	-0.30%	→	-0.30%	American
-	-0.90%	-1.00%	-0.60%	-0.60%	-0.30%	→	-0.70%	Indian
-	1.60%	1.10%	0.90%	1.10%	0.80%	→	1.10%	UK

Note: Forecast based on historical share gain/loss  
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# Within premium and super-premium segments, British, IB and American curricula are expected to grow at 3.5-5% CAGR in the period AY22-27F

Dubai K-12 enrolment, by curriculum, Premium and Super-Premium segments  
(AY2017,20-22,27F)  
Number of students



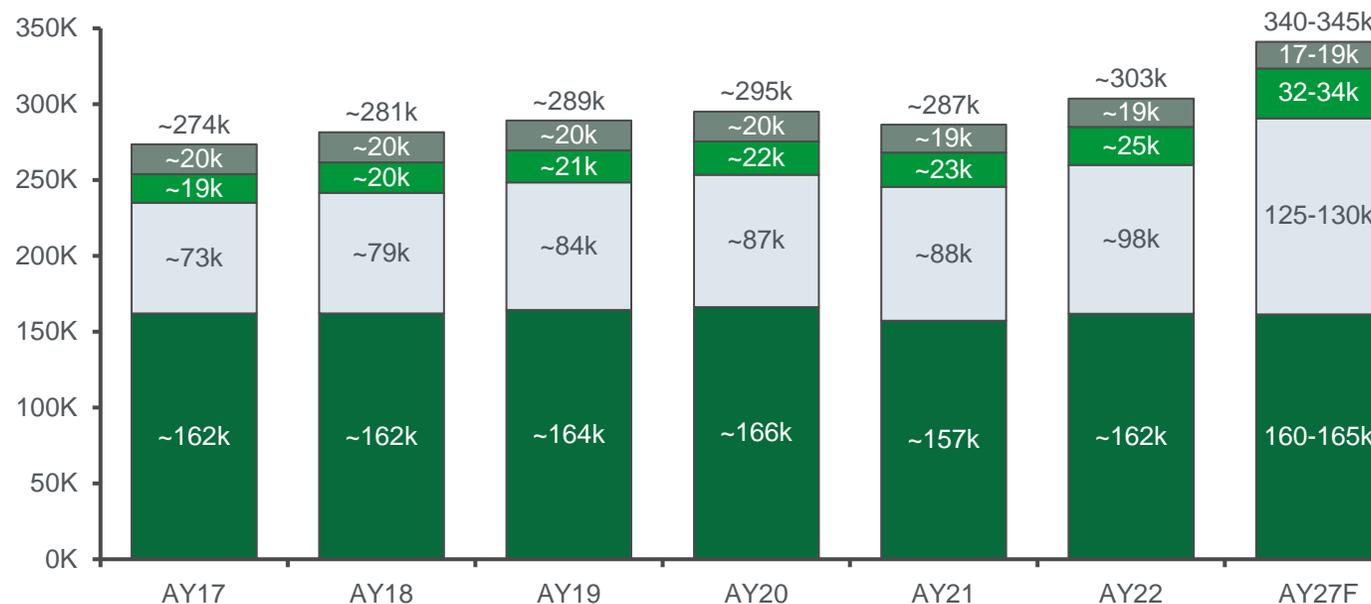
### Annual Market share gain/loss

-	(0.0%)	0.0%	(0.2%)	0.4%	0.1%	→	0.1%	Others IB American UK
-	(0.7%)	0.4%	(0.1%)	0.4%	0.7%	→	0.1%	
-	0.1%	(0.1%)	(0.4%)	(0.1%)	0.1%	→	(0.1%)	
-	0.6%	(0.3%)	0.6%	(0.8%)	(0.7%)	→	(0.1%)	

Note: Forecast based on historical share gain/loss  
Source: L.E.K. research and analysis based on Dubai Private Schools Open Data @ copyright KHDA 2022. All rights reserved

# Jumeirah and Arabian Ranches catchments are expected to grow faster than market at 5.5-6% CAGR based on strong historical performance and resilience to COVID-19 related shocks

Dubai K-12 enrolment, by catchment  
(AY2017,20-22,27F)  
Number of students



	CAGR (AY17-20)	CAGR (AY20-22)	CAGR (AY22-27F)	Incremental enrol. (AY17-22)	Incremental enrol. (AY22-27F)
<b>Total</b>	<b>2.5-3%</b>	<b>1-1.5%</b>	<b>2-2.5%</b>	<b>5.9-6.1k</b>	<b>7.4-7.6k</b>
International City	0-0.5%	(2.5-3%)	(1-1.5%)	(0.1-0.3k)	(0.1-0.3k)
Arabian Ranches	5-5.5%	7-7.5%	5.5-6%	1.2-1.4k	1.4-1.6k
Jumeirah	6-6.5%	6-6.5%	5.5-6%	4.9-5.1k	6.1-6.3k
Deira	0.5-1%	(1-1.5%)	(0-0.1%)	(0-0.1k)	(0-0.1k)
<i>Arabian Ranches, Jumeirah and Deira</i>	<i>2.5-3%</i>	<i>1.5-2%</i>	<i>2.5-3%</i>	<i>6.1-6.3k</i>	<i>7.6-7.8k</i>

### Annual Market share gain/loss

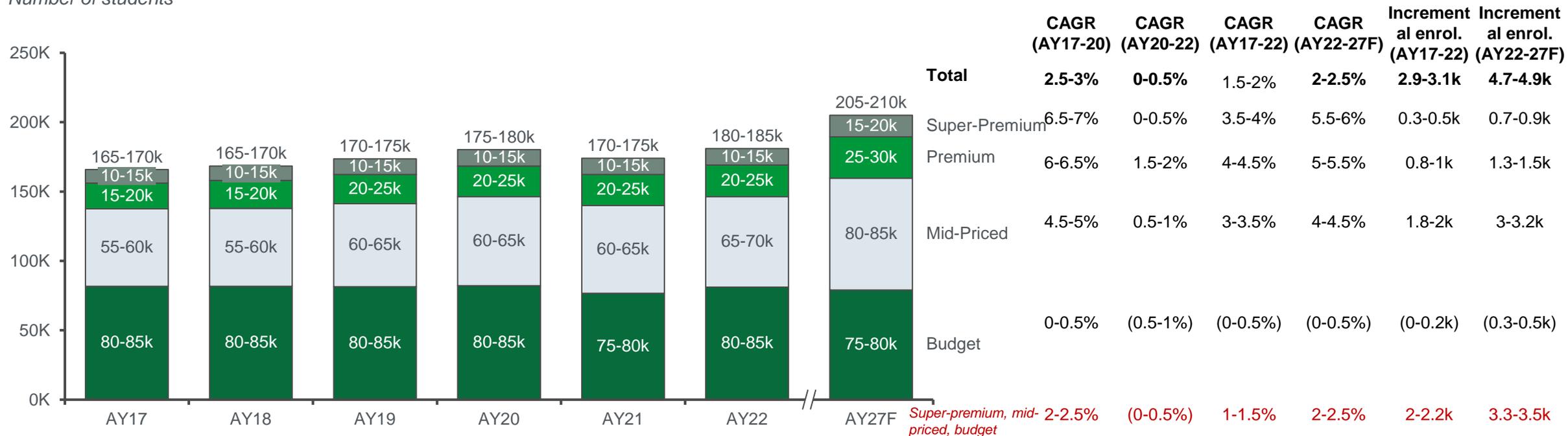
-	(0.1%)	(0.2%)	(0.1%)	(0.2%)	(0.3%) →	(0.2%)	International City
-	0.3%	0.1%	0.1%	0.5%	0.4% →	0.3%	Arabian Ranches
-	1.5%	0.9%	0.5%	1.2%	1.6% →	1.1%	Jumeirah
-	(1.7%)	(0.7%)	(0.5%)	(1.4%)	(1.6%) →	(1.2%)	Deira

Note: Forecast based on historical share gain/loss

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# The overall Abu Dhabi private K-12 market is expected to grow at 2-2.5% CAGR in the AY22-27F period; Premium segment is expected to outperform the market and grow at 5-5.5% CAGR during the period

Abu Dhabi K-12 enrolment, by price segment  
(AY2017,20-22,27F)  
Number of students



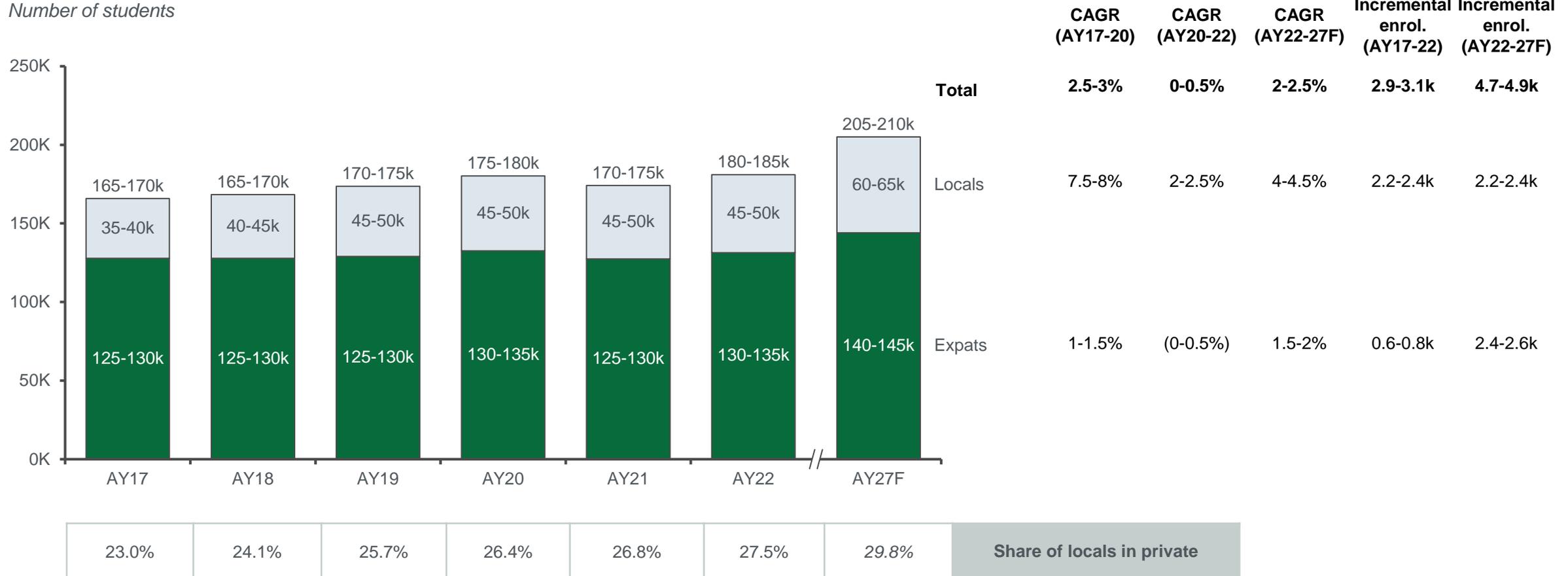
	AY17	AY18	AY19	AY20	AY21	AY22	AY27F	Market share gain/loss
Super-premium, mid-priced, budget	-	0.2-0.4%	0.2-0.4%	0-0.2%	0.1-0.3%	(0.1-0.3%)	0.1-0.3%	Super-premium
	-	0.7-0.9%	0.1-0.3%	0-0.2%	0.5-0.7%	(0.1-0.3%)	0.3-0.5%	Premium+
	-	(0.3-0.5%)	1.1-1.3%	1-1.2%	0.6-0.8%	(0.2-0.4%)	0.5-0.7%	Mid-Priced
	-	(0.6-0.8%)	(1.5-1.7%)	(1.3-1.5%)	(1.4-1.6%)	0.6-0.8%	(1.1-1.3%)	Budget

Note: Forecast based on historical share gain/loss  
Source: L.E.K. research and analysis

# Local enrolment is expected to grow faster than the market at 4-5.5% CAGR while expat enrolment is expected to grow at 1.5-2% CAGR during the period AY22-27F

Abu Dhabi K-12 private enrolment, by nationality  
(AY2017,20-22,27F)

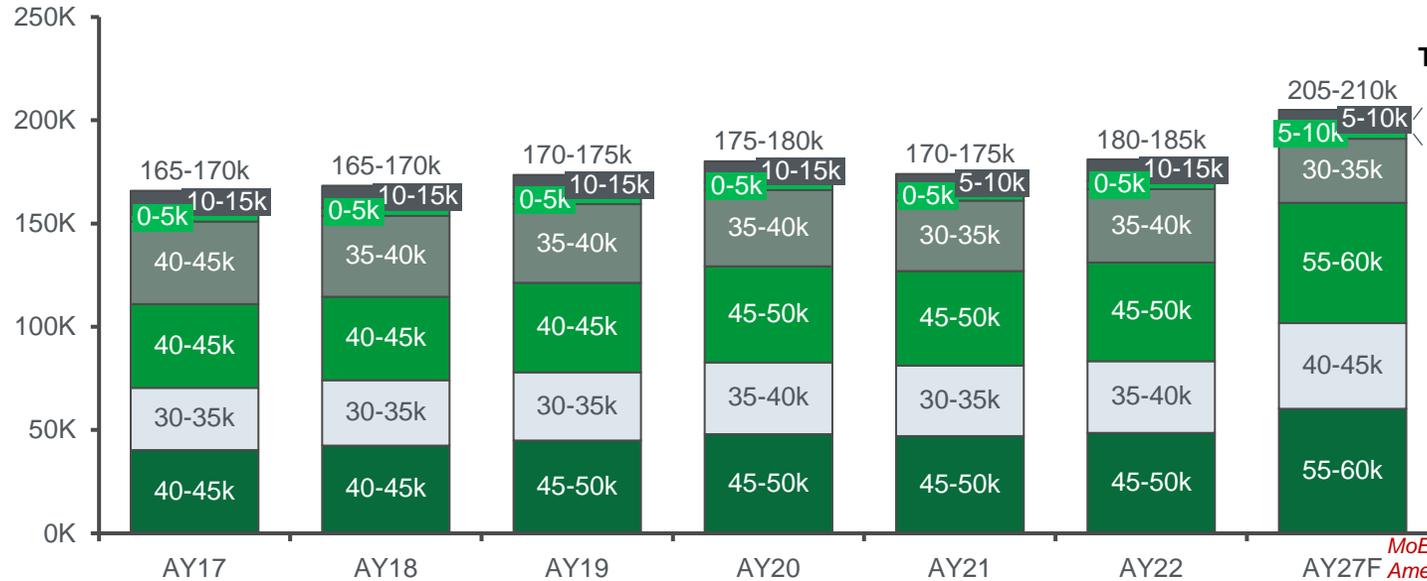
Number of students



Note: Forecast based on historical share gain/loss  
Source: L.E.K. research and analysis

# At an overall Abu Dhabi market level, the IB curriculum is expected to grow faster than the market at 3-3.5% CAGR during AY22-27F

Abu Dhabi K-12 enrolment, by curriculum  
(AY2017,20-22,27F)  
Number of students



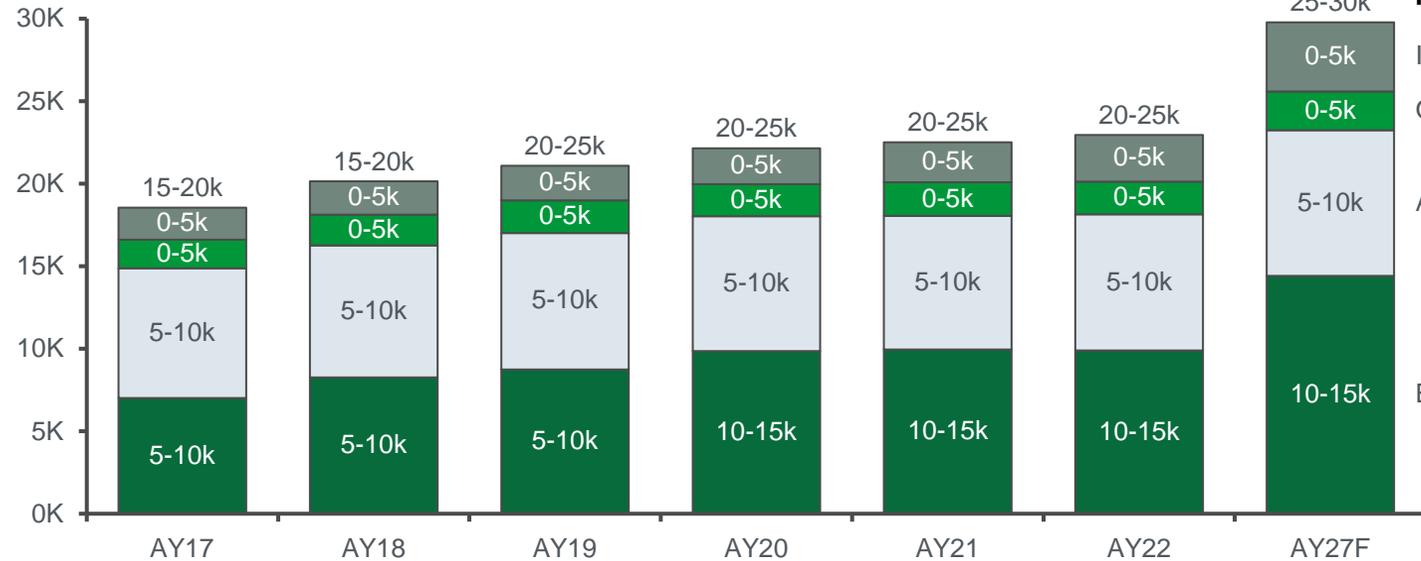
	CAGR (AY17-20)	CAGR (AY20-22)	CAGR (AY17-22)	CAGR (AY22-27F)	Incremental enrol. (AY17-22)	Incremental enrol. (AY22-27F)
<b>Total</b>	<b>2.5-3%</b>	<b>0-0.5%</b>	1.5-2%	<b>2-2.5%</b>	<b>2.9-3.1k</b>	<b>4.7-4.9k</b>
MoE	(2.5-3%)	(0.5-1%)	(1.5-2%)	(2-2.5%)	(0.1-0.3k)	(0.1-0.3k)
IB	0.5-1%	5-5.5%	2-2.5%	<b>3-3.5%</b>	0-0.2k	0-0.2k
Others	(2.5-3%)	(1.5-2%)	(2-2.5%)	(2.5-3%)	(0.8-1k)	(0.8-1k)
American	4.5-5%	1-1.5%	3-3.5%	4-4.5%	1.4-1.6k	2-2.2k
Indian	4.5-5%	(0-0.5%)	2.5-3%	3.5-4%	0.8-1k	1.2-1.4k
British	5.5-6%	0.5-1%	3.5-4%	4-4.5%	1.6-1.8k	2.2-2.4k
<i>MoE, Others, American, Indian, British</i>	<i>2.5-3%</i>	<i>0-0.5%</i>	<i>1.5-2%</i>	<i>2.5-3%</i>	<i>2.8-3k</i>	<i>4.6-4.8k</i>

	AY17	AY18	AY19	AY20	AY21	AY22	AY27F	Market share gain/loss
-	(0.3-0.5%)	(0.3-0.5%)	(0.3-0.5%)	(0.2-0.4%)	(0.3-0.5%)	0.2-0.4%	(0.1-0.3%)	MoE
-	0-0.1%	(0-0.2%)	(0-0.2%)	(0-0.2%)	0-0.2%	0-0.2%	0-0.1%	IB
-	(0.7-0.9%)	(1.3-1.5%)	(1.4-1.6%)	(0.8-1%)	0-0.1%	0-0.1%	(0.8-1%)	Others
-	(0.3-0.5%)	0.9-1.1%	0.7-0.9%	0.4-0.6%	0-0.2%	0-0.2%	0.3-0.5%	American
-	0.5-0.7%	0.1-0.3%	0.2-0.4%	0.2-0.4%	(0.3-0.5%)	(0.3-0.5%)	0.1-0.3%	Indian
-	0.8-1%	0.6-0.8%	0.6-0.8%	0.6-0.8%	0.4-0.6%	(0.1-0.3%)	0.4-0.6%	British

Note: Forecast based on historical share gain/loss  
Source: L.E.K. research and analysis

# Within the premium segment, the IB curriculum segment is expected to grow faster than the market at 8-8.5% CAGR during AY22-27F

Abu Dhabi K-12 enrolment, by curriculum, premium segment (AY2017,20-22,27F)  
Number of students



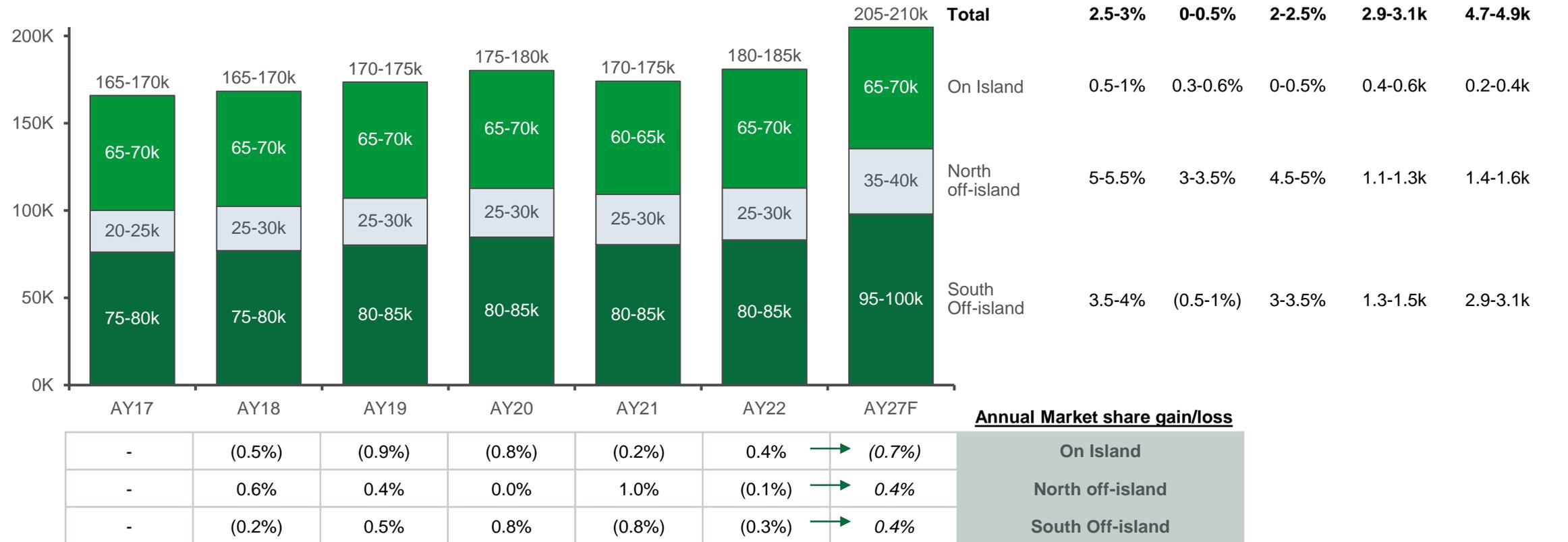
	CAGR (AY17-20)	CAGR (AY20-22)	CAGR (AY22-27F)	Incremental enrol. (AY17-22)	Incremental enrol. (AY22-27F)
<b>Total</b>	<b>6-6.5%</b>	<b>1.5-2%</b>	<b>5-5.5%</b>	<b>0.8-1k</b>	<b>1.3-1.5k</b>
IB	3.5-4%	13.5-14%	8-8.5%	0.1-0.3k	0.2-0.4k
Other	3.5-4%	0.5-1%	3-3.5%	-0.1-0.1k	0-0.2k
American	1-1.5%	0.5-1%	1-1.5%	0-0.2k	0-0.2k
British	12-12.5%	0-0.5%	7.5-8%	0.5-0.7k	0.8-1k

							<b>Market share gain/loss</b>	
-	(0.3-0.5%)	(0.1-0.3%)	(-0.1-0.1%)	0.9-1.1%	1.4-1.6%	→	0.3-0.5%	<b>IB</b>
-	(0.1-0.3%)	0.1-0.3%	(0.5-0.7%)	0.1-0.3%	(0.3-0.5%)	→	(0-0.2%)	<b>Others</b>
-	(2.5-2.7%)	(0.4-0.6%)	(2.3-2.5%)	(0.8-1%)	-0.1-0.1%	→	(1.2-1.4%)	<b>American</b>
-	3.1-3.3%	0.4-0.6%	3-3.2%	(0.2-0.4%)	(1-1.2%)	→	1-1.2%	<b>British</b>

Note: Forecast based on historical share gain/loss  
Source: L.E.K. research and analysis

# North off-island is expected to grow faster than market at 4.5-5% CAGR in the AY22-27 period

Abu Dhabi K-12 enrolment, by catchment  
(AY2017,20-22,27F)  
Number of students



Note: Forecast based on historical share gain/loss  
Source: L.E.K. research and analysis

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