



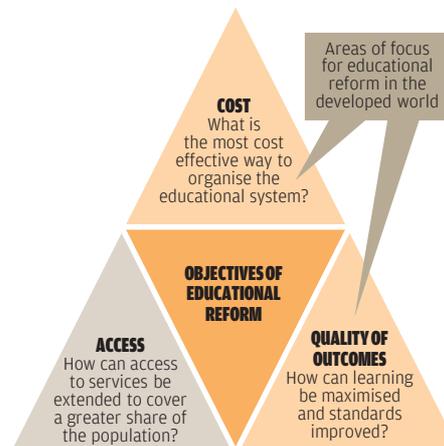
OPPORTUNITY KNOCKS

Megatrends and
opportunities in
education

For many years, the education sector has been poorly understood, captured as a subset of business services or the media sector. Education does however deserve more attention. It continues to be a major area of investment for governments around the world, with increasing opportunities for private sector operators. Here, we focus on some of the key megatrends impacting the education sector globally and highlight some of the resulting opportunities.

Our starting point is a recap of the objectives of educational reform. Cost containment and improvement of educational outcomes have been key factors shaping education trends in the developed world for a number of years, whilst in developing markets, policy makers are trying to determine how access to education services can be extended to a greater proportion of the population.

Against this background, despite current pressures on public spending in developed markets, public and private spending on education is increasing, with growth driven by a number of powerful, long-term global megatrends.



1. DECENTRALISATION AND MARKET BASED REFORMS IN PRIMARY AND SECONDARY EDUCATION

2. GROWING PARTICIPATION RATES IN PRIMARY, SECONDARY AND HIGHER EDUCATION

3. THE GROWING TECHNOLOGY INFRASTRUCTURE AND ASSOCIATED DIGITAL CONTENT AND RESOURCES IN EDUCATIONAL INSTITUTIONS

4. A FOCUS ON EFFICIENCY AND CHANGING FUNDING MODELS (IN DEVELOPED MARKETS)

5. INTERNATIONALISATION AND STANDARDISATION IN EDUCATION

These megatrends suggest that over the long term, the education sector will continue to benefit from robust growth, at a time when many economies in the developed world are struggling to emerge from recession, creating opportunities for the private sector.

MEGATREND #1: DECENTRALISATION

DECENTRALISATION AND MARKET BASED REFORMS IN PRIMARY AND SECONDARY EDUCATION

Educational reform in primary and secondary education in the developed world, such as Voucher Schools in Sweden, Charter Schools in the US and Academies and Free Schools in England, is emphasising supply side reforms to promote parent / student choice and competition in the schools market. Decentralisation is leading to more decision making and budget control being devolved to schools, whilst funding pools are increasingly being opened to both public and private providers.

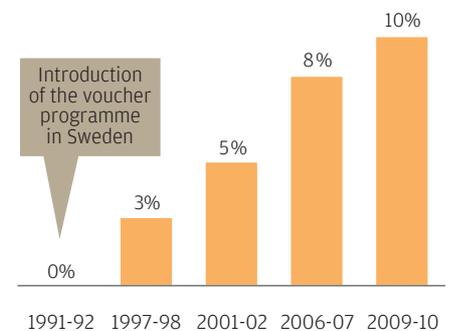
As more budget responsibility is devolved to schools, suppliers to educational institutions, such as the publishers of text books, are increasingly facing a more fragmented buying environment, with resulting implications for how they manage their sales force and other channels to market.

Whilst the implementation of market based reforms promoting growth in private education provision are creating opportunities for the private sector, private providers have had to focus on developing new models to deliver operational efficiency, as revenue growth is typically capped. This reflects the fact that in most cases of market based reforms, privately run (including for-profit) schools receive public funding for each pupil educated on the same terms as Local Authority or municipality schools. As a result, revenue growth in the form of annual tuition fee increases has not been possible. Despite this constraint, a number of private school groups have emerged to explore

scale and experience benefits. For example, Kunskapsskolan now owns and operates 33 schools in Sweden and is the sponsor and founder of the Learning Schools Trust in the UK, which recently opened three new Academy schools in south west London.

The chart on the right highlights the growth in the penetration of independent schools operating under the voucher system in Sweden, where about 10% of lower secondary aged pupils now choose to attend independent schools (for upper secondary students, the figure is over 20%). There is increasing evidence that the increased competition created by the emergence of voucher schools in Sweden has increased levels of educational achievement, as highlighted in a recent study commissioned by The Institute of Economic Affairs. This suggests that these new schools are here to stay. Closer to home, 24 new Free Schools opened for business in England in September 2011, with applications for an additional 200+ Free Schools now being considered by the Department for Education. Whilst Free Schools currently represent only a fraction of the overall number of schools in England and will continue to face challenges in areas such as planning and finding suitable premises, they could become an increasingly important feature of the schools landscape in England over the coming years, provided that they can demonstrate that they can deliver a sustainable improvement in academic outcomes.

Sweden: Students in Compulsory Education in Independent Schools
% of Students Enrolled

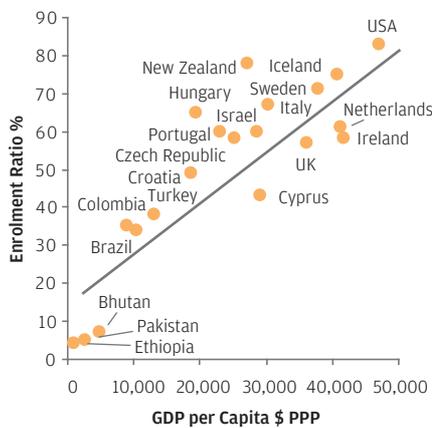


Source: The Swedish National Agency for Education

MEGATREND #2: PARTICIPATION

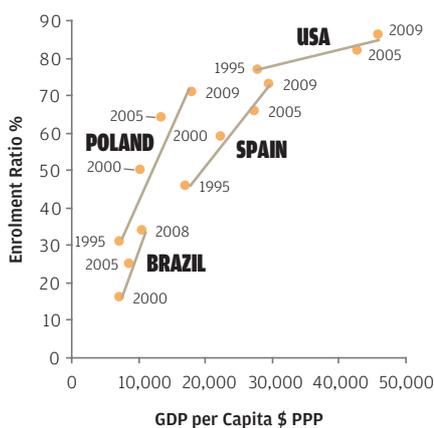
GROWING PARTICIPATION RATES IN PRIMARY, SECONDARY AND TERTIARY EDUCATION

Tertiary Enrolment Ratio and GDP per Capita, 2008



Source: UNESCO, IMF

Tertiary Enrolment Ratio and GDP per Capita, 1995-2009



Source: UNESCO, IMF

Our work in the education sector around the world has highlighted the strong correlation between GDP growth and participation in education. Using tertiary education as an example, the top chart highlights tertiary enrolment and GDP per capita in 2008 for a number of OECD countries. Here, GDP per capita is shown on the basis of purchase power parity. Understandably, enrolment is higher in developed economies such as the US, New Zealand and the Netherlands than emerging economies such as Pakistan.

We have also highlighted the historical change in tertiary enrolment ratios for a number of countries (bottom chart). This highlights the rapid growth in tertiary enrolment in those markets with faster growing economies. For example, in Brazil, the growth in GDP per capita has been accompanied by an increase in tertiary enrolment from 15% in 2000 to 35% in 2008. Poland and to a lesser extent Spain, have experienced similarly rapid growth, whilst in contrast, the US has experienced much more gradual growth in the proportion of the population attending tertiary education institutions.

Quite simply, as average household income rises, the number of households above the private education affordability threshold rises more quickly. Later on, as countries become wealthier, the growth in their tertiary enrolment ratio decreases.

This trend is understandably contributing to a faster rate of growth in spend on education in emerging economies, with regions such as Asia, Eastern Europe and South America, expected to experience growth in public expenditure on education increasing by up to 12% per annum from 2010 to 2015, compared to 5% per annum in North America and 4% per annum in Western Europe over the same period (chart on p.4).

A number of private operators in the education sector are benefitting from this megatrend. For example, Cognita owns and operates 54 schools (nurseries, pre-prep, junior and senior schools) across the UK, Europe and South East Asia, including Thailand, Vietnam and Singapore (with new schools added to the Cognita portfolio in these countries over the past four years). During this period, Cognita has experienced rapid growth in revenues from £65 million in the financial year ending August 2007 to £151 million in the 2010 financial year.

Of course, in many markets, the recent recession has adversely impacted the disposable income of aspiring middle classes, with some parents switching their children out of private schools and back into public education. During the recession therefore, a good understanding of price elasticity was required to determine the precise impact of the economic downturn on private school enrolments.

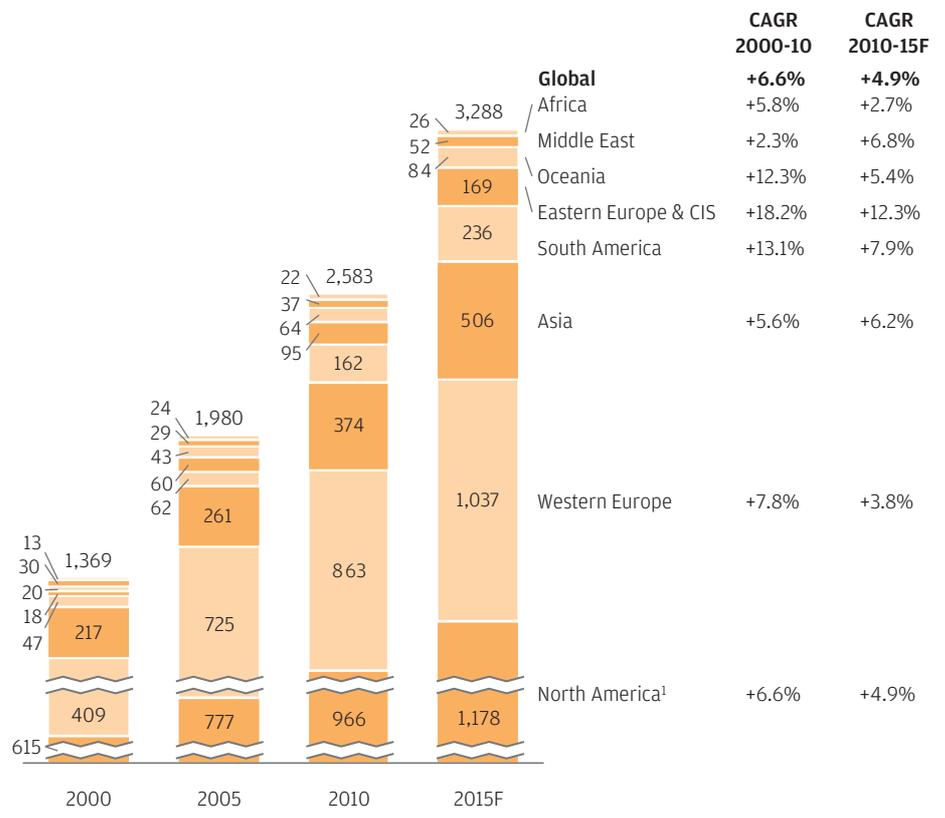
Another example of the opportunities associated with growing participation rates can be seen in the higher education sector. In markets such as Turkey, Romania, Bulgaria, the Czech Republic, Slovakia and Croatia, private providers account for about 15% of students enrolled in higher education. However, these private higher education institutions have contributed disproportionately to enrolment growth in these markets in terms of new university places created (over the period 2000 through to 2008). Laureate, the international operator of private universities, was able to benefit from these trends, by entering into a partnership with Istanbul Bilgi University in 2006, thereby tapping into this growth. Bilgi University is one of the largest private universities in Turkey, with 11,000 students enrolled.



It is worth highlighting that even in developed markets, where growth in enrolment will be limited, robust growth in public expenditure on education is expected, despite the prevailing challenging fiscal environment. This reflects a continued and growing focus on educational outcomes, with a corresponding increasing emphasis on assessment. For example, in 2000, the Programme for International Student Assessment (PISA) at the OECD began tracking the academic attainment of children by the age of 15 in 32 countries, with an emphasis on Maths, Science and English. The most recent PISA assessment completed in 2009, highlights the poor performance of the US (ranked 14) and the UK (ranked 20) in 2009 relative to other OECD countries.

In the UK, despite a gradual improvement, over half of secondary school pupils in England continue to leave school without 5 Grade A*-C GCSEs including Maths and English (the government's target for school leavers aged 16). As a result of these poor academic standards, the UK government continues to commit in excess of £3 billion per annum to the Skills Funding Agency, to fund adult literacy, numeracy and vocational skills training, with much of this funding directed to recent school leavers.

Public Education Spend Over Time
US\$bn



Source: IMF, EIU, UNESCO

MEGATREND #3: TECHNOLOGY

THE GROWING TECHNOLOGY INFRASTRUCTURE IN EDUCATIONAL INSTITUTIONS

The adoption of Information Communication Technology (“ICT”) is changing the education landscape, enabling new methods of delivery and improved learning outcomes. e-Learning is becoming increasingly prevalent as online platforms and access continue to improve, whilst learning aids like interactive white boards, mobile devices and educational software create a better learning environment, often leading to improved academic outcomes. In many cases, deployment can occur very rapidly.

Key growth drivers include the increasing sophistication and penetration of ICT globally, coupled with innovation in the sector. In many cases, governments have set aside ring fenced funding to support adoption of both hardware and digital content. For example, during the 2000s, there was a significant increase in the penetration of PCs and other ICT infrastructure in schools in England, with a resulting increase in the adoption of digital content, due to the provision of funding in the form of e-Learning Credits by the government. Classroom penetration of interactive whiteboards (IWBs) in the UK increased from 15% in 2001 to 85% in 2009, with investment fuelled by the additional funds provided by government. New private ventures such as Espresso Education (established in 1997) were able to benefit from these investments - Espresso Education is now one of the leading providers of digital curriculum in the UK, with its products used in over 10,000 schools.

Looking forward and as outlined in the chart opposite, whilst the market for IWBs in the UK is expected to experience little if any growth through 2014 due to the high level of penetration, other regions will see more rapid growth. At the same time, continued

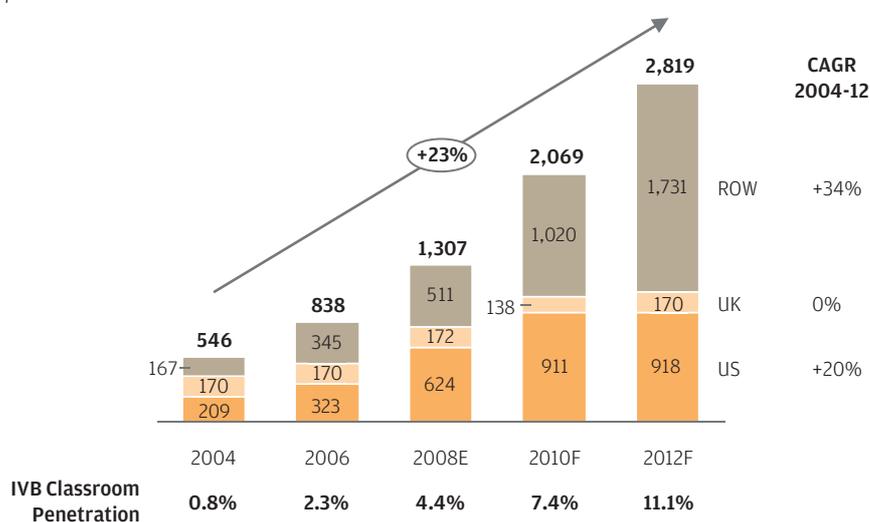
innovation is resulting in greater adoption of digital content and resources, as people increasingly believe that the internet can make a difference to educating children. Hence the success of the Khan Academy, in the US, which uses video lectures to enable lecturing of children outside traditional class time, with class time focused on tutoring. Whilst only a handful of public schools adopted the Khan Academy methodology in the last school year, many other public and private schools are now expressing an interest.

ICT has the potential to deliver significant buy-side efficiencies including: (1) Scale and operational efficiencies both within and across regions through resource sharing and e-Learning; (2) Improved delivery, flexibility and quality of education services (for example, through adaptive learning software), particularly in areas with low access; and (3) the delivery of corporate training more cost effectively. Providers of ICT services, ICT outsourcing providers and e-Learning platform providers will all benefit

from this trend. For example, SMART Technologies, the leading provider of IWBs has experienced annual revenue growth of 30% from 2009 to 2011, with revenues increasing from \$468 million to \$790 million. During this period, unit volumes of IWBs shipped by SMART increased from 306,000 to 406,000. Meanwhile, for potential investors, a buy-and-build strategy is potentially interesting as scale is likely to become increasingly important as ICT in education becomes widespread.

Whilst we do not believe that the adoption of digital content and resources by education institutions is yet at a tipping point and recognise that digital penetration varies enormously by market, the increasing adoption of ICT is creating challenges for some operators. For example, publishers of traditional print-based textbooks need to invest in digital propositions for the medium to long term, to offset the threat presented by start-ups and other market entrants, such as Espresso Education in the UK.

Interactive White Boards Sub-Market by Region, 2004-12F
US\$m



Source: Datamonitor, DTC, Cairneagle Associates, IDC, ICON

MEGATREND #4: EFFICIENCY

A FOCUS ON EFFICIENCY AND CHANGING FUNDING MODELS

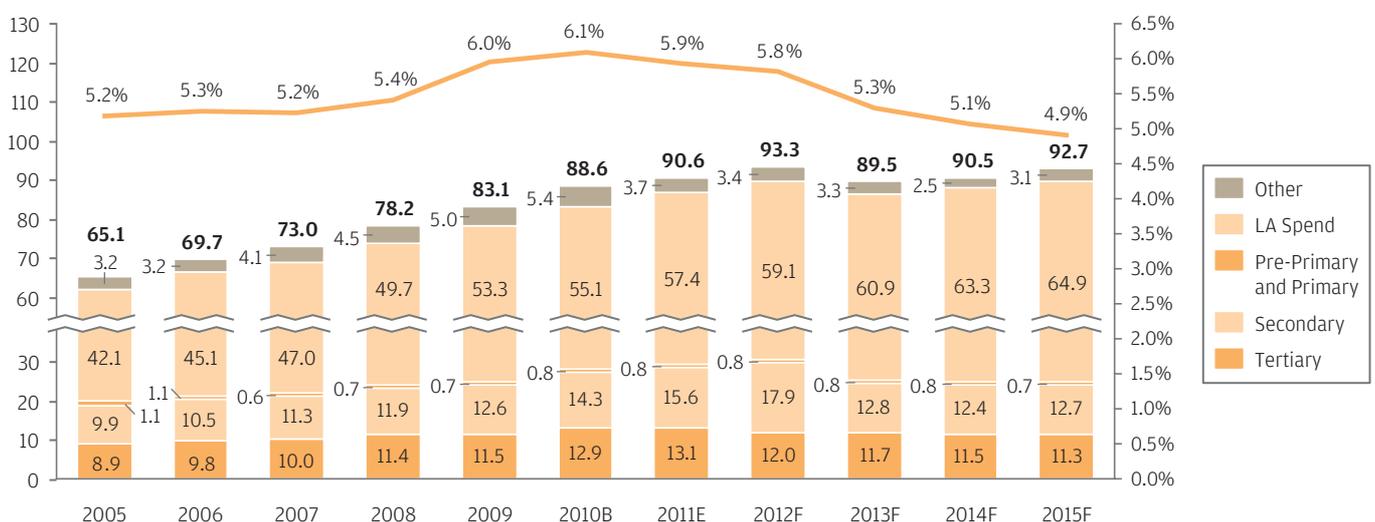
As already highlighted, public (and private) sector budgets are currently under pressure in developed markets, forcing education institutions to find operational savings and/or cut services. Given the current size of deficits and levels of public debt, budgets are expected to remain tight for the foreseeable future in developed countries. For example, in 2010, the UK government announced a 25% cut in the further education budget (through to 2014/15), with further education colleges and other institutions focused on the delivery of adult education now faced with a much harsher funding environment.

Budget cuts present a number of challenges for education organisations and institutions, who are under pressure to cut costs whilst retaining high quality delivery of education.

Local authorities, municipalities and equivalent local government organisations are faced with difficult decisions on funding priorities – for example, what services are core and which ones could be provided privately? The more challenging funding environment has also resulted in policy makers considering a potential shift to new funding models – i.e., user-payer, performance-based funding, and corporate partnerships.

The pressure to find efficiencies will benefit a number of players, including ICT and outsourcing providers to the education sector; such as SunGard Higher Education and Embanet Compass Group in the US. There will also be greater interest from education institutions in the use of collaboration and open resource sharing networks to access cost efficiencies.

UK Public Sector Education Expenditure, 2005-11E
£bn; % of GDP



Source: HM Treasury, www.ukpublicspending.co.uk

MEGATREND #5: INTERNATIONALISATION

INTERNATIONALISATION AND STANDARDISATION IN EDUCATION

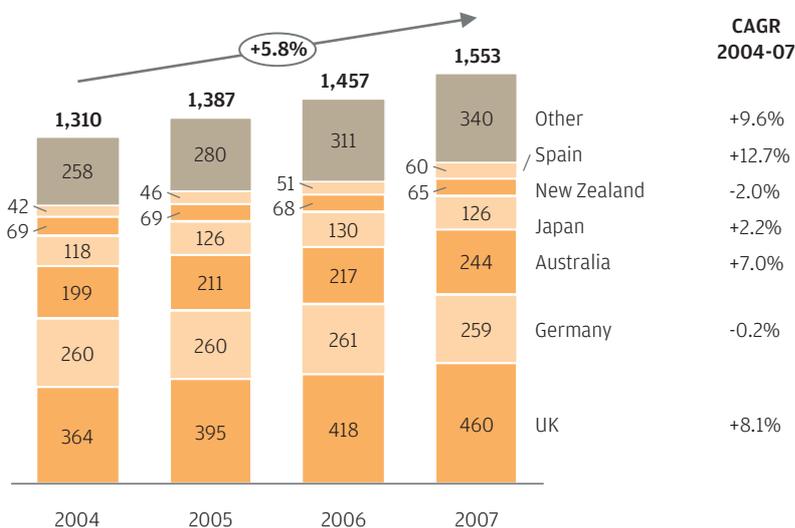
The growing emerging middle class in many developing markets, increasing globalisation and the dominance of the English language in international business continue to contribute to the growth in international students studying in the UK, the US and other English-speaking markets. In higher education in particular, students continue to be highly mobile, particularly for western and English language education, with the UK and the US preferred destinations. Despite capacity constraints at some universities, these international students have generally been welcomed by higher education institutions, as foreign students generate higher fees than domestic students and may require additional support. For example, in the UK, universities can currently command tuition fees for international students that are up to 4x greater than the tuition fees currently received from domestic and EU students (although this dynamic will change with the introduction of higher tuition fees, effective September 2012).

In some markets, namely the UK, the US, Australia and New Zealand, this trend has resulted in the emergence of a new type of education services provider, offering pathway programmes and English language training. Companies like Study Group, INTO University and Cambridge Education Group that partner with universities to offer international students help with getting into universities, have experienced strong growth in revenues. These pathway programme providers also offer other education services such as sourcing suitable accommodation and providing ELT courses to ensure international students attain the required proficiency in English. Larger education groups like Kaplan and Navitas have also benefitted (although the outlook in the UK is now more challenging following the recent overhaul of the student visa system, including tougher entrance criteria, limits on work entitlements and the closure of the post-study work route). In primary and secondary education, private international school groups such as Nord Anglia and Cognita, who offer an English

language based private education, have continued to see rapid growth in enrolments at their international schools in China and South East Asia respectively.

Elsewhere, there continues to be strong demand for English language training in countries such as China. The potential for international expansion into fast growing Asian and South American markets creates a strong investment thesis for many education companies. For example, in 2010, Pearson (the largest education company globally by revenues) acquired Wall Street Institute (WSI), which provides premium spoken English language training for adults. WSI operates over 400 learning centres in 26 territories in Asia, Europe, the Middle East and Africa. Separately, Pearson reported a 27% growth in student enrolments at its Wall Street English schools in 2010 and announced plans to open 50 English language centres in China, adding to the 66 centres and schools already operating under the Wall Street English and Longman English brands.

Non Citizen Enrolment in Tertiary Education - Selected OECD Countries, 2004-07
Thousand Students



Source: OECD, UNESCO

OPPORTUNITIES AND THREATS

The megatrends outlined here present a number of opportunities and also some threats for education companies and potential investors in the education sector, some of which are outlined below.

Opportunities

Threats

DECENTRALISATION AND MARKET-BASED REFORMS

- New operators of independent schools can explore scale and experience benefits in primary and secondary education
- For-profit private school groups can target new growth opportunities (eg, operating Academies) if restrictions on generating an economic return are lifted (in the UK)

- Suppliers to educational institutions such as the publishers of text books face a more fragmented buying environment, with implications for how they manage their sales force and other channels to market

GROWING PARTICIPATION

- Private operators of schools and universities can target new growth opportunities in emerging markets

- In developed markets, where the disposable income of middle class consumers has been adversely impacted by the recession, private schools may experience lower enrolments

GROWING TECHNOLOGY INFRASTRUCTURE

- Providers of ICT products and services, such as interactive white boards, mobile devices and educational software can leverage growth opportunities in markets investing further in ICT
- Innovators in digital content and resources can similarly benefit

- Publishers of traditional print-based textbooks need to invest in digital propositions to offset the threat of start-ups and other market entrants

A FOCUS ON EFFICIENCY AND CHANGING FUNDING MODELS (IN DEVELOPED MARKETS)

- ICT and outsourced services providers can benefit from increased demand for their services
- Providers of collaboration and open resource sharing networks can similarly benefit

- Universities in the UK not offering 'value for money' to students following the advent of higher tuition fees, may experience a fall in enrolments

INTERNATIONALISATION AND STANDARDISATION

- Pathway programme providers will see increased demand from universities in the UK, given the recent overhaul of student visas
- Providers of ELT courses can benefit from the continuing demand for English language training
- Private international school groups can leverage increased demand in overseas markets

- Universities and other higher education institutions in the UK will experience a decline in enrolments from international students given the tougher student visa regulations

SO WHAT?

The megatrends identified pose some tough questions for any company in the education sector, including education institutions, technology and digital companies, providers of support services, traditional textbook publishers and other suppliers.

Each megatrend poses some pertinent questions, which OC&C has worked with clients to address:

1. DECENTRALISATION AND MARKET BASED REFORMS

- To what extent will schools independent from Local Authority or equivalent local government control deliver improved academic outcomes?
- Will new, scale operators of independent schools emerge and if so, what opportunities will these groups present for investors, given the current restrictions on profit making in England?
- As more power is devolved to schools, how should suppliers such as text book publishers, reorganise their sales approaches and infrastructure to deal with the more fragmented buying environment?

2. GROWING PARTICIPATION

- Which international markets offer the most attractive growth opportunities for international operators, based on any imbalance in local demand and supply for education?
- To what extent will growing levels of enrolment in tertiary education in emerging markets increase the flow of international students to western markets?
- What scope is there for further growth in the international private schools market? Which cities (and countries) represent the most attractive local markets for new schools?

3. GROWING TECHNOLOGY INFRASTRUCTURE

- Given the increases in tuition fees in higher education in the UK, will universities need to offer lower cost delivery models, such as online or hybrid degrees?
- Which international markets offer the most attractive opportunities for providers of Learning Platforms and other education technology infrastructure?
- How can technology be used to improve access to numeracy, literacy and other adult skills training for the growing number of young adults in the UK not in employment, education or training?

4. A FOCUS ON EFFICIENCY AND CHANGING FUNDING MODELS (IN DEVELOPED MARKETS)

- To what extent are there opportunities for higher education institutions to explore further opportunities in shared services, particularly in the middle and back office?
- Will the UK see the emergence of new outsourced services providers such as SunGard Higher Education and Embanet Compass Group in the US?
- To what extent will UK universities need to adopt more sophisticated consumer (student) segmentation and pricing, given the advent of higher tuition fees in September 2012?

5. INTERNATIONALISATION AND STANDARDISATION

- Does the ELT sector offer opportunities for consolidation?
- Which international cities and markets offer the most attractive growth opportunities for operators of international private schools?
- What is the expected growth in international curricula such as the International Baccalaureate and what opportunities will this growth present for suppliers to schools?

It is an exciting time to be involved in the education sector, with opportunities to gain competitive advantage. We would love to hear about the challenges your company is facing and share views on the future. Please get in touch on Education@occstrategy.com

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