Investing in European higher education

Matthew Robb, Managing Director, Parthenon-EY Ernst & Young LLP
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Introduction to Parthenon-EY
Global reach: more than 1,500 education strategy projects
Introduction to Parthenon-EY
Serving the entire sector

K-12 systems and schools
► Federal, state and local educational authorities
► Charter schools, private K-12 schools and other innovative education providers
► Foundations on the forefront of education reform
► Ministries of Education

Higher education institutions
► Public university systems
► Global research institutions
► Private, nonprofit colleges and universities
► Ministries of Education

Education content and service providers
► Educational content
► Testing, assessments and accrediting bodies
► Tutoring
► Intervention
► Special education
► Technology providers
► Consumer education products
► English language learning
► Service providers
► Corporate training

Private equity
► Equity and debt investors
► Venture capital
► Private equity
► Corporate
► Globally
► North America
► Latin America
► Europe
► Middle East | Africa
► Sub-Saharan Africa
► Asia, Southeast Asia and Asia-Pacific

Acute understanding of all aspects of global education
Investment thesis
Four key elements

01 Positive underlying macro supply and demand dynamics

02 General market liberalization and rising tertiary enrollment ratio

03 Adjacent markets opened up through post-secondary convergence

04 Sufficiently fragmented for traditional buy and build benefits
Investment thesis
~208m students enrolled in higher education

Higher education* enrollment by continent, by country, 2014

Source: UNESCO
*Note: UNESCO Tertiary Education data includes ISCED 5,6,7 and 8 programs; 2014 is the latest year for which data is available
Investment thesis
TER rises with GDP

Tertiary gross enrollment ratio (GER) vs. Purchasing power parity (PPP) adjusted real GDP per capita, 2014

- Tertiary gross enrollment ratio (GER) of a country is directly correlated with the income per capita and the relationship holds over time
- As the GDP per capita increases, the GER also increases to help sustain the required economic growth
- The growth rate of GER tapers down at higher GDP per capita levels due to the base effect
- From a global perspective, currently we are at a once-in-a-lifetime event of growth in higher education, which would happen over the next 20-30 years, presenting a great opportunity for investors
- In this zone of rapid growth, demand outstrips supply constantly, which makes the market global
- The upper range for tertiary GER is ~50-100% (e.g., South Korea is close to 100%, Singapore close to 75% and France is ~55%)

77 countries from around the world higher education enrollment vs. Income, 1999 to 2014

Source: UNESCO
*Note: UNESCO Tertiary Education data includes ISCED 5, 6,7 and 8 programs
Investment thesis
Europe growing to ~60% TER

Gross tertiary enrollment rates, select countries, 1971–2013

Note: Latest data available is 2013 for most countries
Missing data for some countries (Brazil PP increase is '01-'13, Germany is '97-'13 and UAE is '93-'13)
Source: World Bank
Investment thesis
Long-term international demand

Estimated annual tertiary enrollment growth vs. quality local supply growth, select Asian countries, 2009–14

“Between 1970 and 2007, worldwide tertiary enrollment grew by an average annual rate of 4.6 percent, with the number of tertiary students doubling every 15 years ... China will be unable to supply the demand for 21 million university places and India will need at least 9 million university places by 2020”

– UNESCO

Change in # of top 400 ranked universities

<table>
<thead>
<tr>
<th>Country</th>
<th>Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>China</td>
<td>17</td>
</tr>
<tr>
<td>Vietnam</td>
<td>0</td>
</tr>
<tr>
<td>Hong Kong</td>
<td>0</td>
</tr>
<tr>
<td>Thailand</td>
<td>0</td>
</tr>
<tr>
<td>South Korea</td>
<td>1</td>
</tr>
<tr>
<td>Malaysia</td>
<td>1</td>
</tr>
</tbody>
</table>

Estimated % of enrollment growth covered by quality local supply growth

<table>
<thead>
<tr>
<th>Country</th>
<th>Coverage</th>
</tr>
</thead>
<tbody>
<tr>
<td>China</td>
<td>17%</td>
</tr>
<tr>
<td>Vietnam</td>
<td>0%</td>
</tr>
<tr>
<td>Hong Kong</td>
<td>0%</td>
</tr>
<tr>
<td>Thailand</td>
<td>0%</td>
</tr>
<tr>
<td>South Korea</td>
<td>-43%</td>
</tr>
<tr>
<td>Malaysia</td>
<td>NA</td>
</tr>
</tbody>
</table>

Note: Tertiary enrollment growth is estimated based on reported tertiary enrollment ratio, university enrollments and 18-year-old population in 2009 and 2014
Source: Shanghai University rankings, Euromonitor, UNESCO, Parthenon-EY analysis
Investment thesis
Evolution of private providers

Evolution of higher education market in developed countries

1. Traditional academia
   - Academically elite/wealthy students enter a small number of exclusive higher education institutions (HEIs)

2. Expansion phase
   - Demand increases over time as economies become richer, labor markets more service-oriented and cultures value education more; supply remains constrained
   - Supply balances demand as governments introduce extra capacity via (i) market liberalization to allow private provision and (ii) expansion of public provision

3. Maturity and differentiation
   - The market eventually balances – to justify their price point premium and maintain or grow market share, private providers need to competitively differentiate

Source: Parthenon-EY analysis
Investment thesis
Private university groups occupy the market spaces not traditionally covered by not-for-profit HEIs

Segmentation of undergraduate higher education institutions

- Traditional elite
- Non-elite academic
- Generalist
- Specialist/vocational

- Access
- Exclusive*
- Premium specialists

- Massive open online courses (MOOCs) and continuing education
- Vocational and professional training (VPT)

- University of Law
- Glion & Les Roches
- European University of Cyprus
- ISO
- Career Partner Group

Note: *Exclusive due to high academic or financial requirements
Source: Parthenon-EY analysis
About Parthenon-EY
Parthenon joined Ernst & Young LLP on August 29, 2014. Parthenon-EY is a strategy consultancy, committed to bringing unconventional yet pragmatic thinking together with our clients’ smarts to deliver actionable strategies for real impact in today’s complex business landscape. Innovation has become a necessary ingredient for sustained success. Critical to unlocking opportunities is Parthenon-EY’s ideal balance of strengths – specialized experience with broad executional capabilities – to help you optimize your portfolio of businesses, uncover industry insights to make investment decisions, find effective paths for strategic growth opportunities and make acquisitions more rewarding. Our proven methodologies along with a progressive spirit can deliver intelligent services for our clients, amplify the impact of our strategies and make us the global advisor of choice for business leaders.

About Parthenon-EY’s Education practice
The Parthenon-EY Education practice of Ernst & Young LLP — the first of its kind across management consulting firms — has an explicit mission and vision to be the leading strategy advisor to the global education industry. To achieve this, we invest significantly in dedicated management and team resources so that our global experience extends across public sector and nonprofit education providers, foundations, for-profit companies and service providers, and investors. We have deep experience and a track record of consistent success in working closely with universities, colleges, states, districts, and leading educational reform and service organizations across the globe.

Contact us
Matthew Robb
Managing Director
mrobb@parthenon.ey.com
+44 (0) 207 201 0475
+44 (0) 779 134 9 228

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