Asia: the new powerhouse?

ACA European Policy Seminar:
Higher Education in 2030: A look into the crystal ball

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Pro-Vice-Chancellor (International)
Nottingham Trent University
11 October 2012
Overview

- The Asian Century and the rise of Asian universities
- The conventional wisdom about higher education in Asia
- What is “Asia”?
- The drivers of higher education in Asia
- Broad trends in Asian higher education 2012-30
- Are Asian universities on a trajectory to become “world class”?
- And what does it mean for higher education in Europe?
Asia: the new powerhouse in the “Asian Century”?

• The “Asian Century”
  – Asian Development Bank projects Asian GDP to increase from $17tr to $174tr by 2050 (50% of global GDP)\(^1\)
  – Led by seven economies: China (incl. Hong Kong and Taiwan), India, Indonesia, Japan, South Korea, Thailand and Malaysia

• John O’Leary, The rise of Asia’s young universities:
  – "Youth is on the march in Asia. Not only are four of the continent’s top ten universities less than 50 years old, but they are also among the leading institutions in the world”

• Richard Levin (Yale), The rise of Asia's universities
  – “The rapid economic development of Asia since World War II...has forever altered the global balance of power. These countries recognize the importance of an educated work force to economic growth, and they understand that investing in research makes their economies more innovative and competitive”

1\(^1\) Asian Development Bank (2011), *Asia 2050: realizing the Asian Century*
Global financial crisis has intensified Western insecurities about the rise of Asia
World University Rankings 2012-13: Asia's high-flyers challenge Western supremacy

Losses for UK and US as Eastern excellence drives start to bear fruit

16 October 2012  
http://www.timeshighereducation.co.uk/story.asp?sectioncode=26&storycode=421400&c=1
"The table's authors warned that many UK universities faced 'a collapse in their global position within a generation'"

"Outside the golden triangle of London, Oxford and Cambridge, England's world-class universities face a collapse into global mediocrity. Huge investment in top research universities across Asia is starting to pay off. And while the Sun rises in the East, England faces a perfect storm - falling public investment in teaching and research, hostile visa conditions" (Phil Baty)

"Our global competitors are pumping billions into research-intensive higher education and leading Asian universities - especially in South Korea, Singapore and China - are rising fast" (Dr Wendy Piatt)"
The (now) conventional wisdom about Asia and higher education

- Asian societies revere scholarship

- Investment in higher education across Asia has driven economic development by:
  - Producing an educated labour force
  - Creating centres for research and innovation

- This investment has been funded by:
  - Families paying tuition fees
  - Governments and industry funding research

- The Asian universities will gradually eclipse the Western university system
Investing in higher education

Source: OECD Education at a glance 2011
“Miracle on the Han River” (through Seoul)

Per capita GDP US$
2005 prices

Source: Penn World Tables 6.3
### Korea’s top brands and universities

<table>
<thead>
<tr>
<th>WUR</th>
<th>QS Top 400 Universities</th>
</tr>
</thead>
<tbody>
<tr>
<td>42</td>
<td>Seoul National University</td>
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<tr>
<td>90</td>
<td>KAIST</td>
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<tr>
<td>98</td>
<td>Pohang University of Science and Technology (POSTECH)</td>
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<td>129</td>
<td>Yonsei University</td>
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<td>190</td>
<td>Korea University</td>
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<td>245</td>
<td>Kyung Hee University</td>
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<td>259</td>
<td>Sungkyunkwan University (SKKU)</td>
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<td>314</td>
<td>Hanyang University</td>
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<td>344</td>
<td>Ewha Womans University</td>
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<tr>
<td>392</td>
<td>Sogang University</td>
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</tbody>
</table>

Source: QS World University Rankings 2011/12
Brazil’s top brands
and universities

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<tbody>
<tr>
<td>169</td>
<td>Universidade de São Paulo</td>
</tr>
<tr>
<td>235</td>
<td>Universidade Estadual de Campinas (Unicamp)</td>
</tr>
<tr>
<td>381</td>
<td>Universidade Federal do Rio de Janeiro</td>
</tr>
</tbody>
</table>

Source: QS World University Rankings 2011/12
What is “Asia”?
What is “Asia”?

• Asian Development Bank
  - 47 members within Asia-Pacific (plus 19 in Europe/North America)
  - Includes Pacific Islands, Australia and New Zealand
  - Excludes Middle-East, western boundary is Afghanistan

• “Geographical Asia”
  - east of the Suez Canal and the Ural Mountains, and south of the Caucasus Mountains...bounded on the east by the Pacific Ocean, on the south by the Indian Ocean and on the north by the Arctic Ocean
  - 48 countries, including “Asian” Russia, Cyprus, Turkey and Middle-East

• International Monetary Fund categories of Asian economies:
  - G7: including Japan
  - Other advanced economies (Newly industrialized Asian economies): Hong Kong SAR, Korea, Singapore and Taiwan
  - Emerging and developing economies (Developing Asia): 27 countries, including China, India and Pacific Islands, excluding Australia and New Zealand

• Caveat: different data sources use different definitions of Asia
Geographical Asia: some key characteristics

• Big and getting bigger:
  – 30% of world’s land mass
  – 3.9bn population (60% of world’s total)
  – Population quadrupled in 20th Century

• Growing richer and more economically powerful, but huge diversity:
  – From world’s richest nations:
    1st Qatar ($85,638)
    4th Brunei ($50,790)
    5th Singapore ($49,754)
  – To world’s poorest:
    159th Nepal ($3,397)
    161st Burma ($1,040)
    171st Afghanistan ($733)
Some general trends in South and East Asia

- The drivers of demand for higher education
  - Per capita GDP:
    - Ability to pay
    - Need for education in an advanced knowledge economy
  - Population in 18-30 age group
  - Government policy and cultural attitudes to education
Continued economic growth, provided Asian countries avoid the tiger trap
Projected *per capita* GDP (US$ PPP at 2006 prices)

Source: PWC, The world in 2050 - Beyond the BRICs: a broader look at emerging market growth prospects
Continuing population growth: five of the world’s seven most populous countries are in Asia
By 2020, 50% of the world’s 18-22 year olds will be from four Asian countries

Source: United Nations Population Fund

16 October 2012
But changing shape of the population pyramid for Asia: 1990 (left) vs 2010

Source: Population Division of the Department of Economic and Social Affairs of the United Nations Secretariat
A closer look at the university age demographics

![Graph showing the tertiary age (18-22) population from 2002 to 2020 for various countries. The graph includes lines for China, India, Russia, Brazil, South Korea, Germany, and the US. The forecast shows a decline in the population for these countries. Source: UN Population Division, Oxford Economics.]

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Mid-term stocktake

- Economic growth will continue to drive demand for higher education in Asia
  - Caveat: most forecasts assume seven largest Asian economies avoid the middle income trap
- Population in Asia will continue to grow, but:
  - Growth will be due to an ageing population
  - The population in the 18-22 age range will decline
- Participation rates in higher education will begin to reach Western ‘saturation levels’
Broad trends in Asian higher education

- Participation rates rising to OECD levels
- Policy focus shifting from quantity to quality: advent of new quality assurance regimes
- Explicit policies to internationalise universities
- Governments concentrating funding for research on tier of elite universities to create “world-class” universities
Gross tertiary enrolment rates

Source: UNESCO Institute for Statistics
Projected gross tertiary enrolment rates

Source: UNESCO Institute for Statistics, author’s calculations
Quality assurance

- Levels of quality assurance:
  - Internationally recognised national qualifications framework (including recognition of foreign degrees)
  - Quality assurance of domestic institutions teaching in home market
  - Quality assurance of foreign institutions teaching in home market
  - Quality assurance of domestic institutions teaching in foreign market
  - International collaboration with other national or international quality assurance agencies
## Strength of Quality Assurance

<table>
<thead>
<tr>
<th>Rank</th>
<th>Country</th>
<th>Score/10</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Hong Kong</td>
<td>7.2</td>
</tr>
<tr>
<td>2</td>
<td>China</td>
<td>5.6</td>
</tr>
<tr>
<td>3=</td>
<td>Indonesia</td>
<td>5.0</td>
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<tr>
<td>3=</td>
<td>Malaysia</td>
<td>5.0</td>
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<tr>
<td>5</td>
<td>South Korea</td>
<td>3.9</td>
</tr>
<tr>
<td>6</td>
<td>Thailand</td>
<td>3.3</td>
</tr>
<tr>
<td>7</td>
<td>Singapore</td>
<td>2.8</td>
</tr>
<tr>
<td>8</td>
<td>Japan</td>
<td>2.2</td>
</tr>
<tr>
<td>9</td>
<td>Vietnam</td>
<td>0.6</td>
</tr>
</tbody>
</table>

*Source: British Council*
Asian vs world quality assurance

<table>
<thead>
<tr>
<th>Rankings of strength of quality assurance regime</th>
<th>Score/10</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Australia</td>
<td>9.4</td>
</tr>
<tr>
<td>2 Germany</td>
<td>8.9</td>
</tr>
<tr>
<td>3 UK</td>
<td>8.3</td>
</tr>
<tr>
<td>4 France</td>
<td>7.8</td>
</tr>
<tr>
<td>=5 Hong Kong</td>
<td>7.2</td>
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<tr>
<td>=5 Netherlands</td>
<td>7.2</td>
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<tr>
<td>7 China</td>
<td>5.6</td>
</tr>
<tr>
<td>=8 Indonesia</td>
<td>5.0</td>
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<tr>
<td>=8 Malaysia</td>
<td>5.0</td>
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<td>=8 US</td>
<td>5.0</td>
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<tr>
<td>11 Russia</td>
<td>4.4</td>
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<tr>
<td>12 South Korea</td>
<td>3.9</td>
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<tr>
<td>=13 Thailand</td>
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<tr>
<td>=13 UAE</td>
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<tr>
<td>=15 Nigeria</td>
<td>2.8</td>
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<tr>
<td>=15 Singapore</td>
<td>2.8</td>
</tr>
</tbody>
</table>

Source: British Council
Quality assurance headlines

• All main Asian countries quality assure domestic providers operating in their own country

• Hong Kong, Malaysia and Singapore quality assure foreign providers operating in their country

• Hong Kong and South Korea monitor offshore operations of their domestic institutions

• Asia participates in regional and international quality assurance networks:
  – Asia-Pacific Quality Network
  – International Network for Quality Accreditation Agencies in Higher Education
  – ASEAN Quality Assurance Network
## Quality assurance

<table>
<thead>
<tr>
<th>Country</th>
<th>Agency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Australia</td>
<td>Tertiary Education Quality and Standards Agency (TEQSA)</td>
</tr>
<tr>
<td>Brunei Darussalam</td>
<td>Brunei Darussalam National Accreditation Council (BDNAC)</td>
</tr>
<tr>
<td>Taiwan</td>
<td>Higher Education Evaluation and Accreditation Council of Taiwan</td>
</tr>
<tr>
<td>Hong Kong</td>
<td>Hong Kong Council for Accreditation of Academic and Vocational Qualifications (HKCAAVQ)</td>
</tr>
<tr>
<td>India</td>
<td>National Assessment and Accreditation Council (NAAC)</td>
</tr>
<tr>
<td>Japan</td>
<td>National Institution for Academic Degrees and University Evaluation (NIAD-UE)</td>
</tr>
<tr>
<td>Malaysia</td>
<td>Malaysian Qualifications Agency</td>
</tr>
<tr>
<td>New Zealand</td>
<td>New Zealand Universities Academic Audit Unit</td>
</tr>
<tr>
<td>Philippines</td>
<td>Philippine Accrediting Association of Schools, Colleges and Universities</td>
</tr>
<tr>
<td>Singapore</td>
<td>Council for Private Education</td>
</tr>
<tr>
<td>Thailand</td>
<td>The Office for National Education Standards and Quality Assessment (Public Organization)</td>
</tr>
<tr>
<td>Vietnam</td>
<td>Institute for Education Quality Assurance of Vietnam National University, Hanoi (VNU-INFEQA)</td>
</tr>
</tbody>
</table>

Source: Asia-Pacific Quality Network
Internationalising Asian higher education

• Motives for internationalisation:
  – Development aid (Colombo Plan)
  – Project language and culture (soft diplomacy)
  – Export education (commercial)
  – Attract skilled immigrants
  – Strengthen teaching and research on campus through the presence of foreign scholars

• Australia, UK and New Zealand
  – Moved from Colombo Plan to export education without clear strategy
  – Asian governments have clear objectives for internationalisation

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Objectives of internationalisation in Asia

• China
  – China’s National Plan for Medium and Long-term Education Reform and Development 2010-2020: aim to internationalise Chinese higher education
  – Target is to attract 500,000 international students by 2020 – 150,000 in higher education
  – Develop partnerships with foreign universities
  – Attract foreign faculty to teach in leading Chinese universities
  – Main goals are soft diplomacy and increasing teaching and research quality
Objectives of internationalisation in Asia

• Korea
  – Scholarship programme to attract international students
  – 83,840 international students in 2010/11
  – Target to achieve 100,000 by 2012/13
  – Setting up foreign university branch campuses and bringing international students to Incheon Free Economic Zone
  – Main goal is to improve quality of postgraduate research

• Japan
  – 300,000 Foreign Students Plan announced 2008
  – Offers a range of inbound scholarships
  – Tuition fees lower for international than domestic students
  – Main goal is to attract skilled immigrants, some development aid scholarships
Objectives of internationalisation in Asia

• **Malaysia**: *Internationalisation Policy for Higher Education In Malaysia 2011*
  - Increase international students to 150,000 by 2015 and 200,000 by 2020
  - Also goals for recruiting international faculty and inbound and outbound international mobility for students and staff
  - Building “Education Malaysia” brand (from Education New Zealand)
  - Main goals are to improve quality of Malaysia higher education and export education, with Malaysia as an educational hub

• **Singapore**
  - Global Schoolhouse policy to raise international students from 100,000 in 2010 to 150,000 by 2015
  - CPE has closed majority of small private colleges offering franchised degrees
  - Aim is to achieve internationalisation by expanding domestic sector (eg, Singapore University of Technology and Design and attracting foreign universities to set up campuses
  - Main goals are export education (education hub) and attracting skilled immigrants
Focusing resources to build world-class universities

• China
  - 2,358 universities
  - 22.3m undergraduates, 1.5m postgraduates (MoE, 2011/12)

• Project 211: started 1995
  - 113 universities
  - Train 80% PhDs, 66% PGT, 50% of international students, host 96% of research laboratories

• Project 985: started 1998
  - Chinese “Ivy League”
  - Initially C9 League, now 39 universities

• Goals:
  - To make Peking and Tsinghua “top university”
  - To make 8 universities “world-class”
  - To make remaining 29 universities “well-known internationally”
Focusing resources to build world-class universities

• Korea
  - World Class University’ (WCU) project launched in 2008
  - Government-funded to bring international scholars to Korea and set up new programmes
  - KoreaBrain21 to create 10 world class, research-oriented universities

• Thailand
  - Second 15-Year Long Range Plan on Higher Education
  - Focus resources on nine national research universities

• Japan
  - A Policy for the Structural Reform of Universities, 2002: 21st Century Centres of Excellence Programme
  - Now Global COE Programme: targeted support to the creation of world-standard research and education bases (centres of excellence)
  - Based on discipline areas, not whole universities
Focusing resources to build world-class universities

• Malaysia
  – National Higher Education Strategic Plan 2011-15
  – 6 Research Universities
  – 20 world class Centres of Excellence (CoE)
  – One or two APEX Universities among existing IHEs
  – Three IHEs among the top 100 and one in the top 50 of world renowned universities

• Singapore
  – Has bilateral system of polytechnics/institutes of technical education vs four public universities
  – Research funding concentrates on NUS and NTU
  – Uses foreign universities to absorb additional demand for places

• Taiwan
  – Development Plan for World-Class Universities and Research Centers of Excellence
Janet Ilieva (British Council, Honk Kong): another trend in Asian higher education

“The other big development in ASEAN is the introduction of the free labour market, which currently is only aimed at professionals with HE degrees. I believe this will provide a significant boost to offshore provision across the region. Given English is the official language of the ASEAN community – many countries are making efforts to improve their English languages proficiency scores, which should further facilitate TNE delivered in English.”
Are Asian universities on a trajectory to becoming “world-class”? (1)

<table>
<thead>
<tr>
<th>THES-QS Rankings 2004</th>
<th>QS Rankings 2012</th>
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<tbody>
<tr>
<td>12 Tokyo University</td>
<td>22 Hong Kong University</td>
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<td>18 NUS</td>
<td>28 NUS</td>
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<td>29 Kyoto University</td>
<td>32 Kyoto University</td>
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<td>39 Hong Kong University</td>
<td>37 Chinese University of HK</td>
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<td>41 Indian Institute of Technology</td>
<td>40 HKUST</td>
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<td>42 HKUST</td>
<td>42 Seoul National University</td>
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<tr>
<td>59 Nanyang University of technology</td>
<td>45 Osaka University</td>
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<tr>
<td>51 Tokyo Institute of Technology</td>
<td>46 Peking University</td>
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<tr>
<td>62 Tsinghua</td>
<td>47 Tsinghua University</td>
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<tr>
<td>84 Chinese University of Hong Kong</td>
<td>57 Tokyo Institute of Technology</td>
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<tr>
<td>89 University of Malaya</td>
<td>58 Nanyang University of Technology</td>
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<td>70 Tohoku University</td>
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<td>80 Nagoya University</td>
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<td>87 National Taiwan University</td>
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<td>90 KAIST</td>
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<td>91 Fudan University</td>
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<td>98 POSTECH</td>
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From 12 to 18 in Top 100
Are Asian universities on a trajectory to becoming “world-class”? (2)

<table>
<thead>
<tr>
<th>SJTU ARWU 2003</th>
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<tbody>
<tr>
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<tr>
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<td>30 Kyoto University</td>
</tr>
<tr>
<td>83 Osaka University</td>
<td>53 Osaka University</td>
</tr>
<tr>
<td>96 Nagoya University</td>
<td>65 Tohoku University</td>
</tr>
<tr>
<td></td>
<td>68 Nagoya University</td>
</tr>
</tbody>
</table>

From 4 to 5 in Top 100
Are Asian universities on a trajectory to becoming “world-class”? (3)

- Philip Altbach “glass ceiling”
- Pumping resources into Asian universities will lead to diminishing returns, because Asian culture and practices will act as a brake to the pursuit of academic excellence
- Guanxi restricts free movement of staff, students and resources and career advancement of faculty
- Decision-making is not based on academic merit, but personal relationships and preferential treatment
- Plagiarism and the falsification of scientific results is believed to be widespread in Asia
Are Asian universities on a trajectory to becoming “world-class”? (4)

Altbach also argues that:

- The focus for higher education is Asia is on undergraduate education – militates against building research capacity
- Teaching is based on outdated rote learning, which stifles creativity
- Many Asian students are being educated in low quality private sector institutions
- The salaries of faculty are low by international standards and teaching loads very high
Jamil Salmi’s “natural lab experiment”

• Twins separated in 1964:
  – Universiti Malaya (QS2013 ranking 156th)
  – NUS (QS2013 ranking: 25th)

• Talent
  – UM: selection bias in favour of Bumiputras, less than 5% foreign students, no foreign professors
  – NUS: highly selective, 43% of graduates students are foreign, many foreign professors

• Finance
  – UM: US$118m revenue, $4,053 per student
  – NUS: US$750m endowment, $205m revenue, $6,300 per student

• Governance
  – UM: restricted by government regulations and control, unable to hire top foreign professors
  – NUS: status of a private corporation, able to attract world-class researchers

Source: siteresources.worldbank.org/EDUCATION/.../Salmi_WCU.ppt
A response from Asia

• Remember the four main pillars of Asia higher education policy:
  – Raising participation rates
  – Embedding robust quality assurance regimes
  – Opening up and internationalising universities
  – Concentrating funding for research on an elite tier of research universities

• These are all intended to improve the quality of teaching and research

• Hong Kong, Singapore and Korea have shown how world-class universities can be built within two decades:
  – HKUST (est. 1991, QS2011 rank 40th)
  – NTU (est. 1991, QS2011 rank 47th)
  – POSTECH (est. 1986, QS2011 rank 98th)
An alternative view
Will Asian universities continue to develop along Western lines?

• Current evidence is that Asia is using the West as the role model for excellence:
  – Hong Kong and the switch to US four year liberal arts degree in 2012/13
  – Singapore and the new Yale-NUS Liberal Arts College
  – China and Nottingham/Liverpool joint ventures

• But the political, social and cultural environment is different

• And technological and private competition may offer different development paths

• “There is no reason anyone would want a computer in their home” (Ken Olson, Digital Equipment Corp., 1977)
What does the rise of Asia mean for European universities?

1980s

1990s

Competition for students: fewer student coming from traditional source markets in Asia and intense competition from Asia for students from emerging markets
The changing destinations of international students

- The Netherlands: 60* (8%)
- France: 250 (12%)
- Germany: 175 (9%)
- Switzerland: 33 (26%)
- United Kingdom: 320 (15%)
- United States: 691 (3.5%)
- Canada: 87 (7.6%)
- Australia: 260 (21%)
- Singapore: 92 (10%)
- Malaysia: 80
- China: 230

* Degree students

Sources: Mapping Mobility 2011 and UNESCO Data Centre (2010)
Recruiting in Europe

• Asian universities are not only retaining more of their own students and competing for international students in third markets

• As the tuition fees for domestic students in Europe rise, they will also compete for European students

• Student World Fair

• Hong Kong University
Meet universities from around the world

and discover why you should study abroad. You'll hear from world ranked institutions, brand new universities and agent representatives. Below is a list of all of our exhibitors, read about their university, daily life and the money you'll need to live out in that country. Download our handy question sheet so you can get all of your questions answered on

16 October 2012
And Asian universities increasingly competing for the top faculty...

Professor Arnoud De Meyer, President

Estab. 2000

Professor Howard Thomas Dean, Lee Kong Chian School of Business
Some companies that didn’t see Asian competition coming...
Conclusions

• Asia is not an homogeneous bloc

• Nevertheless, higher education in the leading Asian countries is moving from a focus on quantity to quality

• This trend will be reinforced by continuing economic growth and declining 18-22 populations

• Key trends to 2030 will be quality assurance, internationalisation and focus on world-class universities

• Asian universities face genuine obstacles to becoming world-class

• ...just like Honda and Suzuki in the 1960s!