L’enseignement supérieur au service de la société de la connaissance : tendances et scénarios à l’horizon 2025

Stéphan Vincent-Lancrin

 Analyste principal et Chef de projet OCDE, Direction de l’Éducation
Challenges in OECD countries

• Expansion of tertiary education
  – Quality and relevance of education
  – Quality and productivity of research
  – Call on the public purse in a context of competing priorities (crises, ageing, public debt, etc.)

• Globalisation
  – Increased competition between systems
  – Importance of being in international knowledge flows

• Governance
  – Trend towards more institutional autonomy
  – Policy instruments to steer at a distance (indicators, etc.)
Outline

• Trends
  – Demand for tertiary educated people
  – Expansion of tertiary education
  – Governance of tertiary education systems
  – Privatisation of tertiary education
  – Funding of tertiary education
  – Internationalisation
  – Academic research
  – Skill development

• Scenarios for higher education
TRENDS IN HIGHER EDUCATION
Expanding for more graduates?

DEMOGRAPHY
A change in the skills needed? (Skills biased technical change)
Employment structure in Europe in 1993 (hours worked)

Source: Goos, Manning and Salomons (based on ELFS data)
Employment structure in Europe in 2006 (hours worked)

Source: Goos, Manning and Salomons (based on ELFS data)
Tertiary educational attainment (%) of 25-44 population

- 2005
- 2025 (T20)

Countries and their respective educational attainment percentages in 2005 and 2025 (T20).
Will the expansion of tertiary education continue?
Entry rates into tertiary education (5a), 2000 and 2009

Percentage of upper secondary graduates who will enrol in 5a in their life

2009 - 2000
Evolution of the 18-24 population by 2025 (2005=100)

Scenario 1: Projected tertiary enrolments in 2025 under current conditions (2005=100)

Source: OECD, Higher Education 2030, Vol. 1 Demography
Scenario 2: Projected tertiary enrolments in 2025 under recent trends (2005=100)

Source: OECD, Higher Education 2030, Vol. 1 Demography
Growth in tertiary enrolments (1998-2009) (%)

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Source: OECD; *: 1999-2009
Share of enrolments in general programmes (5a) and evolution (1998-2009) (%)

Little change, or a tendency towards more academic programmes

Source: OECD; *: 1999-2009
Social inequity over time (father’s education)

Source: Social Situation Observatory (except Japan, Korea, and Australia)
• Privatisation of higher education
• Cross-border higher education
• Academic research
• Trends in governance

GLOBALISATION
Governance
3 key trends in governance

• **Globalisation: international harmonisation**
  – **Bologna**: degree architecture (BMD), Quality Assurance, ECTS, international mobility
  – Cross-border higher education and people mobility
  – International rankings

• **Diffusion of New Public Management practices**
  – Autonomy and accountability
  – Steering by incentives/sanctions and contracts
  – Universalisation of quality assurance mechanisms

• **Increasing importance of quantitative indicators in system steering**
  – Learning and employment outcomes
  – Research output
  – Rankings
Privatisation of supply?
Distribution of enrolments by control of institution, 2009

Source: OECD
Evolution of enrolments in independent private institutions, 1998 and 2009
Privatisation of financing?
Impoverishment?
Total tertiary education expenditures as share of GDP, 2000 and 2008

Source: OECD, * = 2007 ** = 2009
Total expenditures for tertiary education institutions as % of GDP in 2005, and projected difference by 2025 under expansion scenario 2 (GDP points)

GDP set at 2% growth and educational costs per head projected linearly according to 1995-2005 growth rate (constant prices)

Source: OECD, Higher Education 2030, Vol. 1 Demography
Who finances higher education?

Distribution of funding for higher education, by source (2009) (%)
Growth in public expenditures for higher education, 1998-2008 (1998=100)
Growth in household expenditures for higher education, 1998-2008 (1998=100)
Share of public expenditures in tertiary education institutions expenditures, 1998 and 2008

Source: OECD; * : 1999 instead of 1998
Institutional funding for instruction should be formula-driven, relate to both input and output indicators and include strategically targeted components:

- Block grants should rely on transparent formulas based on a balanced array of input and output indicators
- Performance-based funding mechanisms should be carefully implemented
- A possible model is a contractual relationship between institutions and the State
- Institutional funding to include targeted development programmes
- Institutional funding to be adjusted to the particular mission of the institution
- Institutions to be autonomous in the use of their block grants
- Funding to offer some stability for long-term development
- Sources of institutional funding to be diversified
- Complementary streams for the funding of capital infrastructure
Institutional cost effectiveness

Improving cost-effectiveness – possible responses:

- More funding on the basis of graduation rates
- Reduction of public subsidies for students who remain too long in the system
- Conversion of loans into grants if students graduate within nominal time
- The elimination of low enrolment and/or duplicated programmes with possible redeployment of academics across education programmes
- Rationalizing faculty to respond to student contractions
- Increasing use of shared facilities
- Increasing student mobility between institutions
The rise of cross-border higher education
International mobility of students

- OECD countries receive about 80% of the ca. 3.7 million foreign students in the world in 2009

- The number of foreign students within OECD has grown quickly over the past decades and years (by 111% between 1998 and 2009)

- Two thirds of foreign students within the OECD area come from non-OECD countries

- Some of these foreign students are not mobile (or « international ») students, but the bulk of them are mobile
Number of foreign students in OECD countries (2009)

A high, but decreasing concentration in few host countries

Source: OECD
Percentage of foreign students in total tertiary enrolments in OECD countries (2009)

OECD average in 2009: 8.7%
OECD average in 1998: 4.8%

Source: OECD
Growth in the number of international and foreign students within the OECD (1998-2009, 1998=100)

OECD Median: 261

Source: OECD
Note: Belgium, Mexico and Netherlands, 1999
Foreign branch campuses of HEIs, by country of origin (2009)

- US, 79
- Australia, 14
- UK, 12
- France, 11
- India, 11
- Netherlands, 5
- Mexico, 8
- Other, 18

Source: Observatory on Borderless Higher Education
EXPORT strategies

Revenue generation
Ex: Australia, New Zealand, UK (non-EU), US (undergraduates), Malaysia

Skilled migration
Ex: Germany, France, UK (EU), US (postgraduates)

IMPORT strategies

Capacity building
Ex: Malaysia, Singapore, Hong Kong-China, China, Indonesia, Oman, Dubai

Mutual understanding
Expected social/economic benefits of cross-border higher education

- Cultural, political and geo-strategic

- Academic
  - Quality through benchmarking
  - More rapid awareness and adoption of new knowledge
  - Better trained and connected staff
  - Maintaining capacity in some fields, for now and the future (ageing society, declining interest from students)
  - Generating revenue for institutions in some countries

- Economic
  - More educated (and thus productive) human resources
  - Attracting highly skilled workers (knowledge economy)
  - Generating export revenues
  - Innovation and knowledge networks (essential for tacit knowledge)
Academic research
Share of doctoral students (ISCED 6) in tertiary education enrolments in 2009 (%)
Change in government R&D budgets, 1998-2008 (average annual growth rate)
Technology
• Potential huge impact on research and science
  – Cyber-infrastructures are revolutionising science
  – E-journals, e-books, e-resources are revolutionising research and access to knowledge

• E-learning: an impact on the student experience
  – More flexibility of access
  – Virtual learning and distance learning
  – Blended learning still to be invented, but some changes in higher education pedagogy (e-portfolios, problem-based learning, etc.)
  – Use of videogames?
  – Open Educational Resources
Fostering skills for innovation-driven societies
How does university education prepare for different types of jobs?

Percentage of tertiary-educated workers considering their studies as a good basis for:

- Starting work
- Learning on the job
- Performing in current work tasks
- Development of entrepreneurial skills

Data source: REFLEX, HEGESCO
Retrospective assessment of university education for skill development

Rank of strengths (1-8 out of 19)

- Analytical thinking
- Master of your own field
- Acquire new knowledge
- Write reports or documents
- Perform under pressure
- Use time efficiently
- Work productively with others
- Make your meaning clear

Data source: REFLEX, HEGESCO
Retrospective assessment of university education for skill development

Rank of weaknesses (1-8 out of 19)

- Write and speak a foreign language
- Assert your authority
- Negotiate
- Use computers and internet
- Present ideas in audience
- Write reports or documents
- Mobilize capacities of others
- Knowledge of other fields

FRA vs Country mean
SCENARIOS FOR HIGHER EDUCATION
Scenarios for higher education systems

International

Administration
Supply-driven

National

Market
Demand-driven
4 scenarios

• Open networking
• Serving local communities
• New public responsibility
• Higher education, Inc.
Scenario 1: Open Networking

Drivers

- International cooperation & harmonisation of systems
- Technology
- Ideal of open knowledge

Related developments

- Bologna process, international academic partnerships and consortia,
- Increasing computing power and culture of openness challenging traditional intellectual property rights

Features

- Intensive networking among institutions, scholars, students (& industry)
- Modularisation of studies under academics’ control
- International collaborative research
- Strong hierarchy between networks but quick spillovers
- Lifelong learning outside the HE sector
Scenario 2: Serving local communities

Drivers

• Backlash against globalisation
• More geo-strategic sensitivity in research
• Cost efficiency

Related developments

• Anti-globalisation movements
• Crisis?

Features

• (Re)focus on national and local missions
• Public funding and control of the academic profession
• Convergence between universities and polytechnics
• Elite universities struggle to stay more internationalised
• Less research, mainly on humanities
• Big science relocated to government sector (more secretive and less internationalised)
Scenario 3: New public responsibility

Drivers

- Pressure on public budget (ageing, public debt, etc.)
- Diffusion of governance structures based on new public management

Related developments

- Autonomy given to HEIs (sometimes legally privatised)
- Debates on cost sharing
- Encouragement of competition between HEIs

Features

- Mainly public funding but autonomous institutions controlled at arm’s length (incentives + accountability)
- Mixed funding: new markets + more tuition fees (income contingent loans)
- Demand-driven system with more marked division of labour (specialisation but most HEIs continue to do some research)
- Research funds allocated through domestic competitive process (except for Europe)
Scenario 4: Higher education, Inc.

Drivers

- Trade liberalisation in education (GATS, bilateral)

Related developments

- Rise of trade in HE & inclusion of education in trade negotiations
- International competition for students
- Increase of cross-border funding of research

Features

- Global competition for education and research services
- Public funding for non-commercially viable disciplines exclusively
- Segmentation of the education and research market
- Vocational higher education: important share of the market
- Strong (international) division of labour according to competitive advantage
- Concentration of research and worldwide competition for funding
- English as main language of study
Scenarios for higher education systems

- Open Networking
- Higher Education Inc.
- Serving Local Communities
- New Public Responsibility

Axes:
- Administration to Market
- International to National
A few questions

• **Scenario 1:**
  – Sustainable in a knowledge economy?
  – In what geo-strategic context?
  – What are the incentives to ensure the networks do not serve the interests of their members only and reproduce the national hierarchies at the global level?

• **Scenario 2:**
  – Would this lead to greater inequalities within countries?
  – What would happen to the progress of scientific research?
  – Does this meet the requirements of incremental innovation?
A few questions

• **Scenario 3:**
  – Is there a tipping point after which real markets replace quasi-markets, and governments lose some or most of their control over the system?
  – To what extent should the concentration of research be encouraged?
  – Could this model allow systems to be more responsive to the diversity of individual, social and economic needs?

• **Scenario 4:**
  – Will all countries be able to retain some national educational and research capacity?
  – Are all systems equally equipped to compete?
  – What would happen to areas of human knowledge that are not commercially viable?
What would a global university look like?

• Scenario 1: worldwide university network playing in different leagues (consortium, partnerships, multi-campus, etc.)

• Scenario 2: marginal elitist venture in nationally oriented systems (world class university?)

• Scenario 3: national entreprise with programmes and campuses abroad to thrive in its local market at the globalisation era (campuses and programmes abroad)

• Scenario 4: multinational entreprise for research and/or for education (global brand)
Higher Education to 2030

Forthcoming:
- Volume 3: technology
- Volume 4: Scenarios
Tertiary Education for the Knowledge Society

VOLUME 1
SPECIAL FEATURES: GOVERNANCE, FUNDING, QUALITY
By Paulo Santiago, Karine Tremblay, Ester Basri and Elena Arnal

VOLUME 2
SPECIAL FEATURES: EQUITY, INNOVATION, LABOUR MARKET, INTERNATIONALISATION
By Paulo Santiago, Karine Tremblay, Ester Basri and Elena Arnal
OECD work on internationalisation
THANK YOU

Stephan.Vincent-Lancrin@oecd.org

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