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#### Higher Education's Future: a New Global Order

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# Higher Education's Future: A new global order?

Professor Ellen Hazelkorn Vice President, Research and Enterprise, and Dean of the Graduate Research School Head, Higher Education Policy Research Unit (HEPRU) Dublin Institute of Technology, Ireland EAIR Conference, Stavanger, Norway September 2012



# Is this the Future?

- Public universities will receive only 10% of income from governments;
- Fastest growing sector will be the for-profit;
- It will be cheaper to build new universities because there will only be ilabs and e-libraries;
- HEIs will not recruit any professor who has not studied overseas;
- HE attendance will be compulsory, with recruitment via Twitter/Facebook,
- Most courses will be online, and students will take courses at multiple HEIs and receive on-line tutoring via an 800 number;
- Once graduated, if students don't find a proper job within 6 months, they will be reimbursed for the costs of their studies.

J. Salmi (2011)



### Contents

- The Policy Challenge
- Context and Contradictions
- Using Ireland as an Example
- Reconfiguring Mass Higher Education?



# 1. The Policy Challenge



# Sustainable Higher Education

- Application of knowledge is widely acknowledged as being the source of social, economic and political power;
  - Castells (1994, p14) said higher education was the "engine of development in the new world economy";
  - OECD repeatedly shows strong correlation between educational attainment and social and economic advantages for individuals and society;
- Developments have sustained "social contract" for massification/research. But, GFC has exposed fundamental weaknesses in underpinning funding model and public expectations:
  - Unswerving public support for public institutions slowly eroding since rise of neo-liberalism in 1980s;
  - Escalating public/private debt, HE costs and tuition fees suggest HE to be next bubble (Schumpeter, 2011);
- How can the long term sustainability of European HE be preserved?



# Improving the Student Experience

- The quality of HE is coming under increasing scrutiny.
  - If higher education is the engine of the economy, governments and the public are looking for verifiable and measurable evidence of impact and benefit;
  - Students, as consumers, are questioning the value-for-money of their study programme relative to tuition fee or institution's status and reputation;
  - Tax-payers want more evidence of the value and contribution to society-as-awhole;
- Quality and pursuit of excellence are now key mantra dominating HE, inside and outside the academy.
  - There are many simplistic solutions (rankings being the most obvious).

Despite widening participation beyond traditional *elite* student cohort, are HEIs still chasing after high-achieving 18-to-24-year-olds?



## Strengthening Knowledge and Innovation

- Globalisation has enhanced the importance of knowledge-intensive production, with policy focus on innovation as source of competitive advantage, in the neo-liberal era;
  - Successful economies are those best able to develop/exploit new knowledge through investment in knowledge-based intellectual assets (Brinkley, 2008, pp. 17–18).
  - Global rankings have highlighted the investment attractiveness of nations based upon the knowledge-producing capacity of universities;
  - European HE under increasing pressure from BRICS and Middle East.
- The world-class research university has become panacea for ensuring success in the global economy and world science (Mohrman et al, 2008).

By concentrating knowledge creation in elite universities, do we risk reducing the over-all national capacity for sustainable knowledge society?



## 2. Context and Contradictions



"The Union has today set itself a new strategic goal for the next decade: to become the most competitive and dynamic knowledge-based economy in the world capable of sustainable economic growth with more and better jobs and greater social cohesion". (Lisbon European Council 23 And 24 March 2000, Presidency Conclusions, http://www.europarl.europa.eu/summits/lis1\_en.htm)

"Europe is no longer setting the pace in the global race for knowledge and talent, while emerging economies are rapidly increasing their investment in higher education....too few European higher education institutions are recognised as world class in the current, research oriented global university rankings... And there has been no real improvement over the past years." (European Commission (2011) "Supporting growth and jobs – an agenda for the modernisation of Europe"s higher education system", COM(2011)567/2, http://ec.europa.eu/education/higher-education/doc/com0911\_en.pdf, p. 2)



# Setting the Context (1)

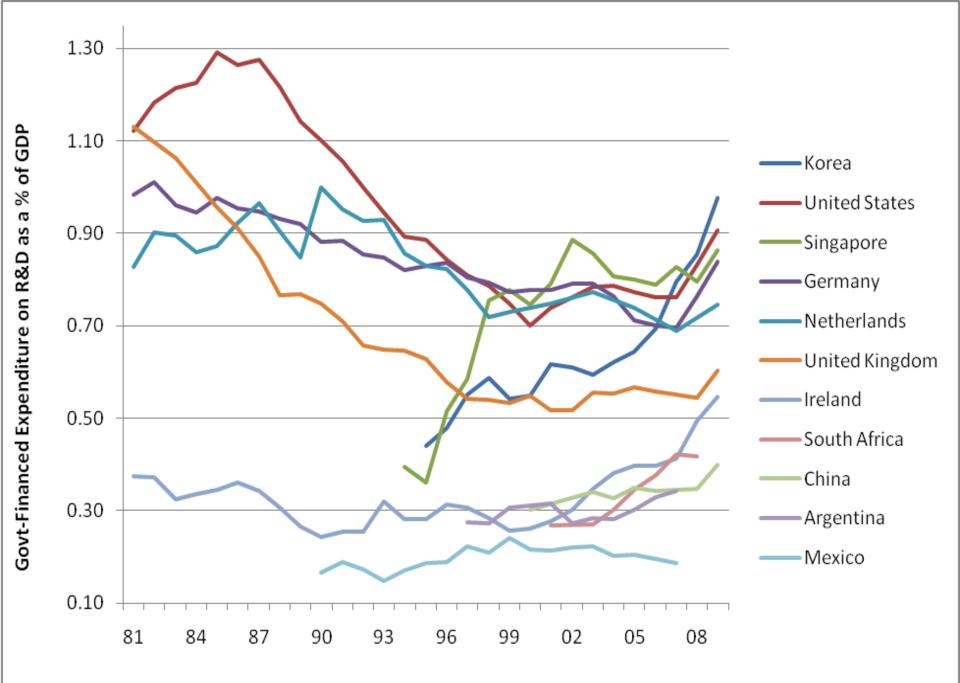
- Globalisation has been forcing change across all knowledge-intensive industries. These developments have intensified during the long adjustment period of the global financial crisis;
- Competition between nations for a share of the global marketplace highlights why governments increasingly see investment in HE and R&D as vital for ensuring the knowledge base essential for economic growth and especially for economic recovery;
- Previously regarded as social expenditure, HE is now central to the productive economy;
  - Leading to tension between HE as human capital development vs. arm of industrial policy;
  - Many governments now combine HE/R&D research with skills, science, innovation, business, etc.



# Setting the Context (2)

- Global rankings have highlighted/tracked shifts in competitive strengths and weaknesses of nations through performance and attractiveness of their HEIs;
  - This has had a revolutionizing affect on perceptions of the "world order";
  - Established universities in the US and Europe have, heretofore, been the primary "winners". However, rankings are a measure of past performance.
- Prioritization now being given to investment in HE and research in emerging societies beginning to produce shifts in "world order" and international division of knowledge;
  - Pervasiveness of focusing on top 100 obscures changing geography of academic activity. Asian societies are showing most signs of improvement;
  - On-going tension between Lisbon/European agenda and position of European universities in rankings;
- This explains why global rankings have assumed such significance, at a geopolitical level, in recent years.

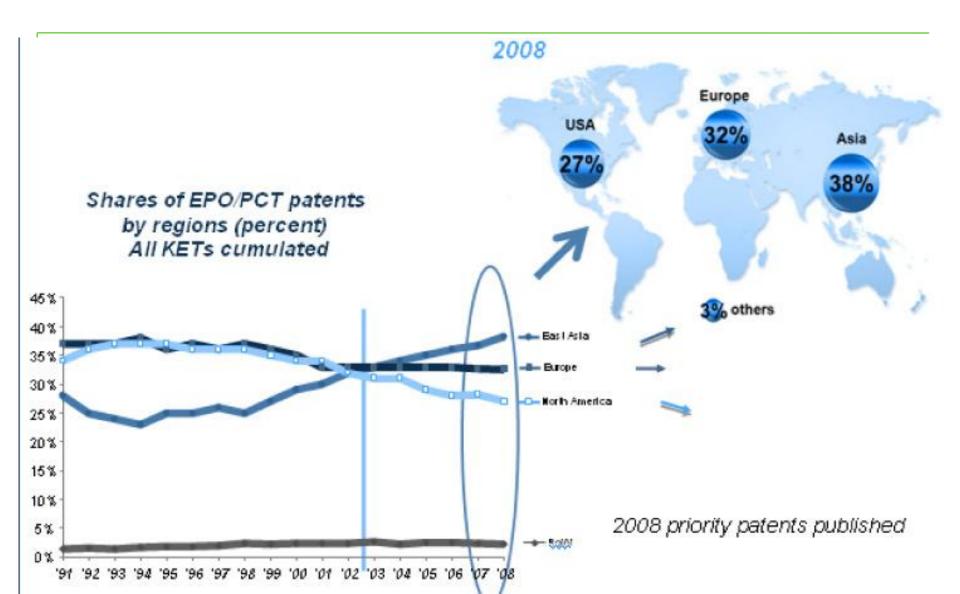




Time Range: 1981-2009

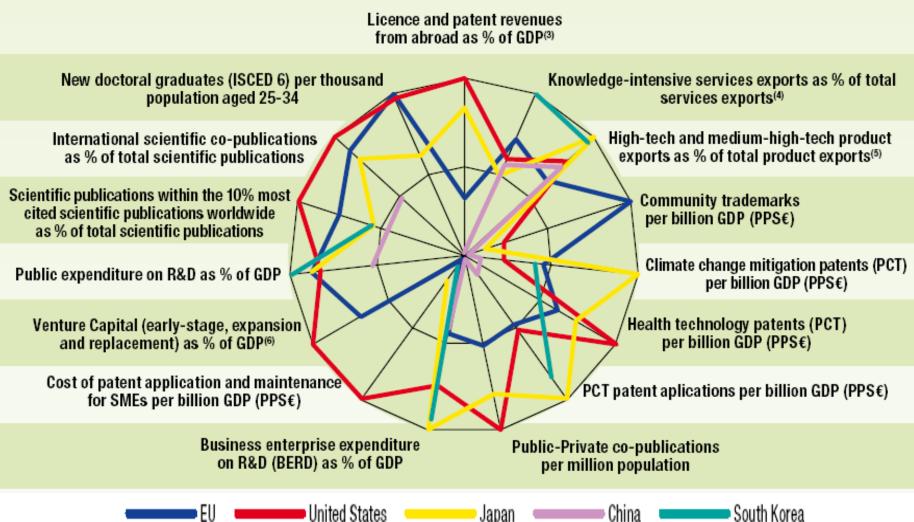
OECD Science and Technology Indicators, 2012

### EPO/PCT KET patents by regions, 2000-07



## Performance Scorecard: R & I Indicators

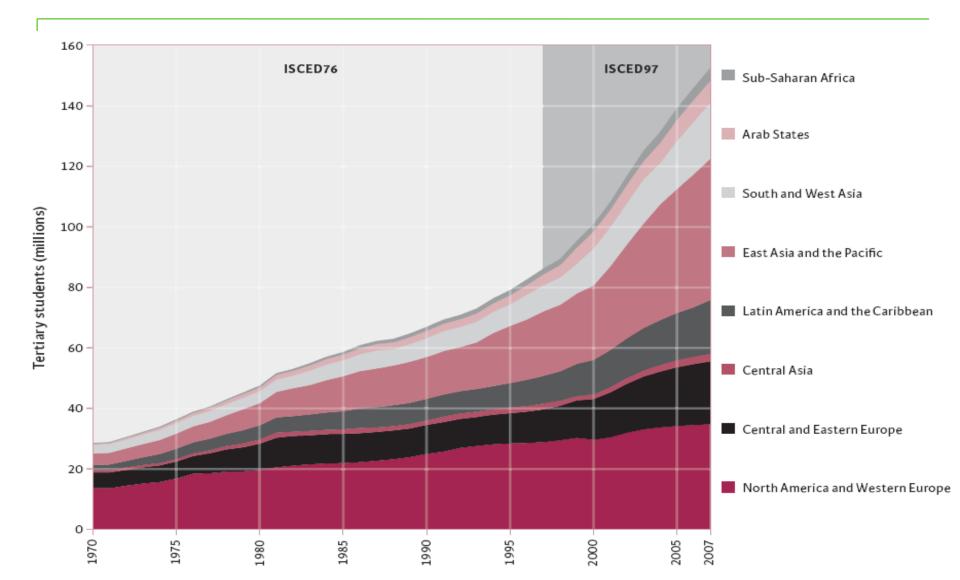
#### 2009<sup>(1)</sup>



#### World Order According to Rankings Top 100, 2004-2011

|             |              |         |            |                       | $\frown$  |         |        | r      |
|-------------|--------------|---------|------------|-----------------------|-----------|---------|--------|--------|
| RANKING     | YEAR         | NORTH   | EUROPE     | AUSTRALIA<br>& NEW Z. | ASIA      | LATIN   | AFRICA | MIDDLE |
|             |              | AMERICA | (w/RUSSIA) |                       | (w/INDIA) | AMERICA |        | EAST   |
|             |              |         |            |                       |           |         |        |        |
| QS/ THE-QS  | 2011         | 35      | 40         | 7                     | 18        | 0       | 0      | 0      |
|             | 2008         | 42      | 34         | 8                     | 13        | 0       | 0      | 1      |
|             | 2004         | 38      | 36         | 12                    | 13        | 0       | 0      | 1      |
|             |              |         |            |                       |           |         |        |        |
| ARWU        | 2011         | 57      | 33         | 4                     | 6         | 0       | 0      | 0      |
|             | 2008         | 58      | 34         | 3                     | 5         | 0       | 0      | 0      |
|             | 2004         | 55      | 37         | 2                     | 5         | 0       | 0      | 1      |
|             |              |         |            |                       |           |         |        |        |
| WEBOMETRICS | <b>201</b> 1 | 73      | 16         | 2                     | 7         | 2       | 0      | 0      |
|             | 2009         | 71      | 21         | 1                     | 5         | 2       | 0      | 0      |
|             |              |         |            |                       |           |         |        |        |
| SCImago     | 2011         | 46      | 25 /       | 4                     | 24        | 1       | 0      | 0      |
|             | 2009         | 47      | 25         | 4                     | 22        | 2       | 0      | 0      |

## Tertiary Enrolment by Region, 1970-2007

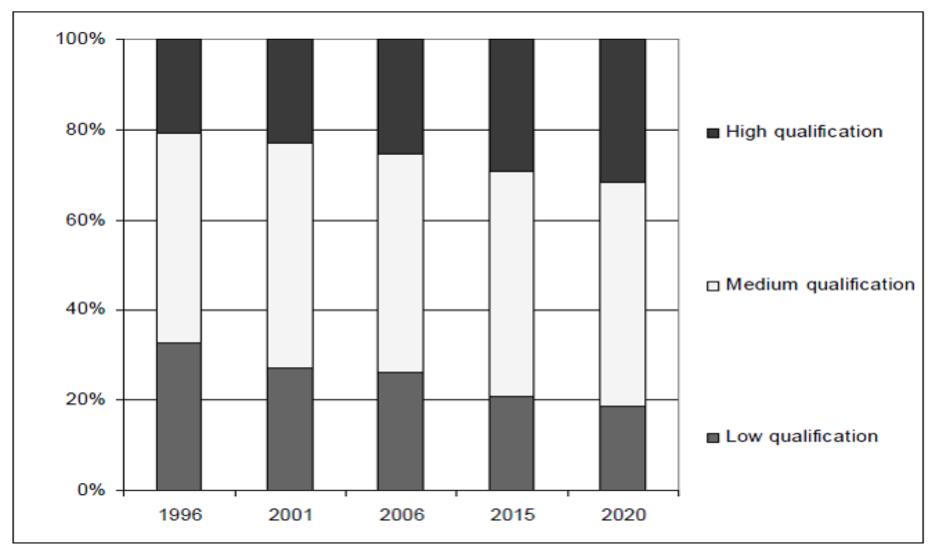


# Rising demand *on/for* HE

- Access to higher education has expanded from being privilege of birth or talent or both (elite phase) to right for those with certain qualifications (mass phase) to obligation for vast majority of society and occupations (universal);
- Expansion occurred in tandem with:
  - shift to knowledge-based economy;
  - population growth;
  - link between education and personal satisfaction and prosperity.
- Today, UN "low-variant" scenario expects nearly 8bn or 117m more people on Earth by 2050;
- To meet demand, at least "one sizeable new university has to open every week" over next decades (Daniel, 1996).

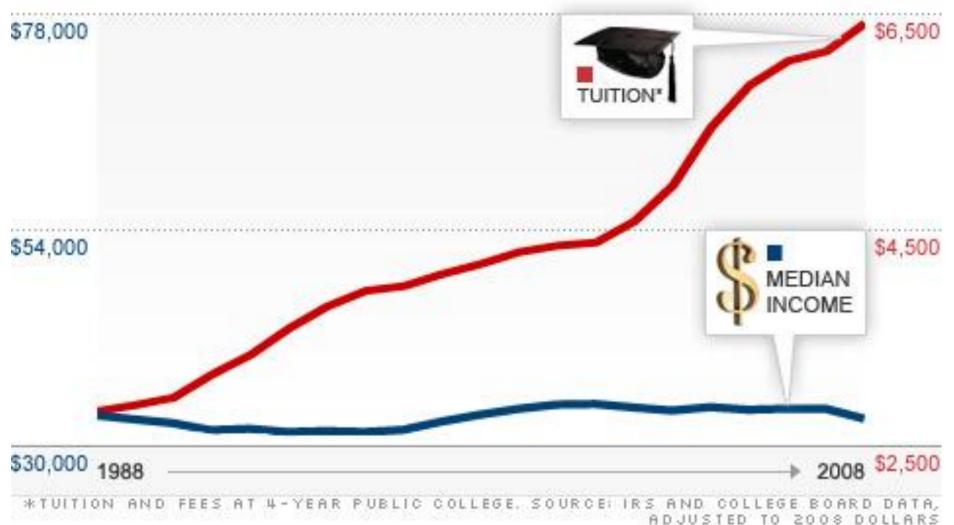


# Past and likely future qualification structure of jobs, %, EU-25+

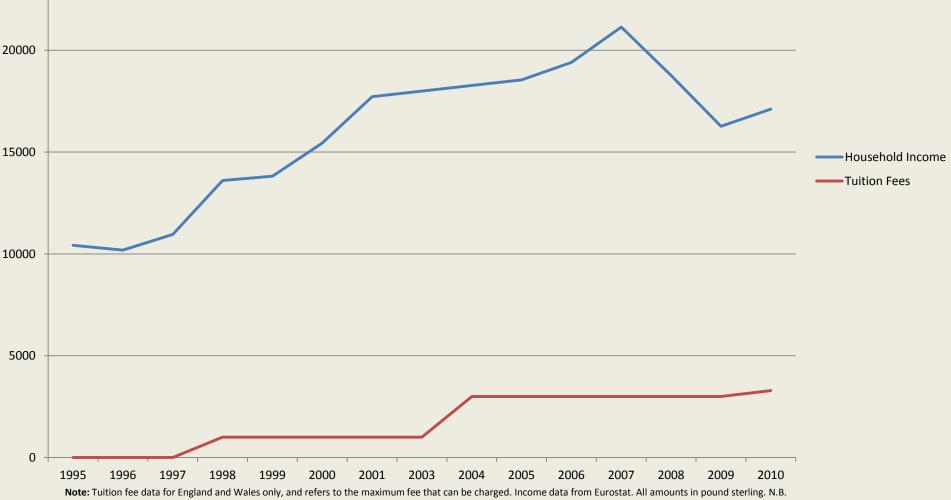


#### Growing Gap between Incomes/Tuition? (rate of change)

AMERICAN INCOMES CAN'T KEEP UP WITH TUITION HIKES



# Evolution of net median household income and tuition fees, UK, 1995-2010



Universities are now able to charge students up to 9.000 pounds a year, and many do.

# **Demographic Challenges & Funding Crisis**

- Despite estimated global population growth, many (developed) countries experiencing significant demographic crisis: a combination of "greying" plus reduced and late childbirth;
  - These demographic changes challenge national strategies for growing knowledge-intensive industries;
  - Heightening competition for high-achieving students and talented professionals;
- Recognition that HE can be/is engine of economic growth/recovery is occurring at same time costs are escalating, private incomes are static/falling, and public budgets are declining.
- Some governments are investing heavily or retaining level of investment (often as part of stimulus) while others face serious financial strain.
- There is likely to be a "savage sorting of winners and losers" (Sassen, 2011).

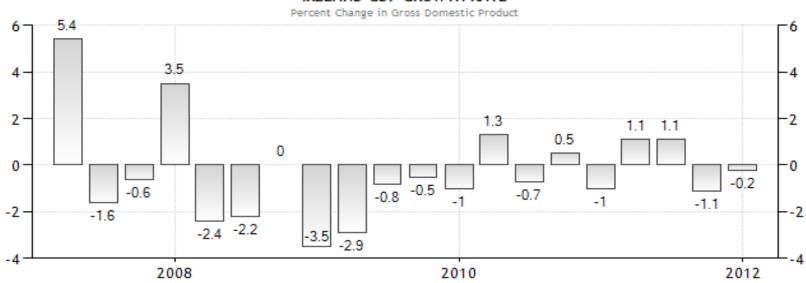


### 3. Using Ireland as an example



## **Economic Environment**

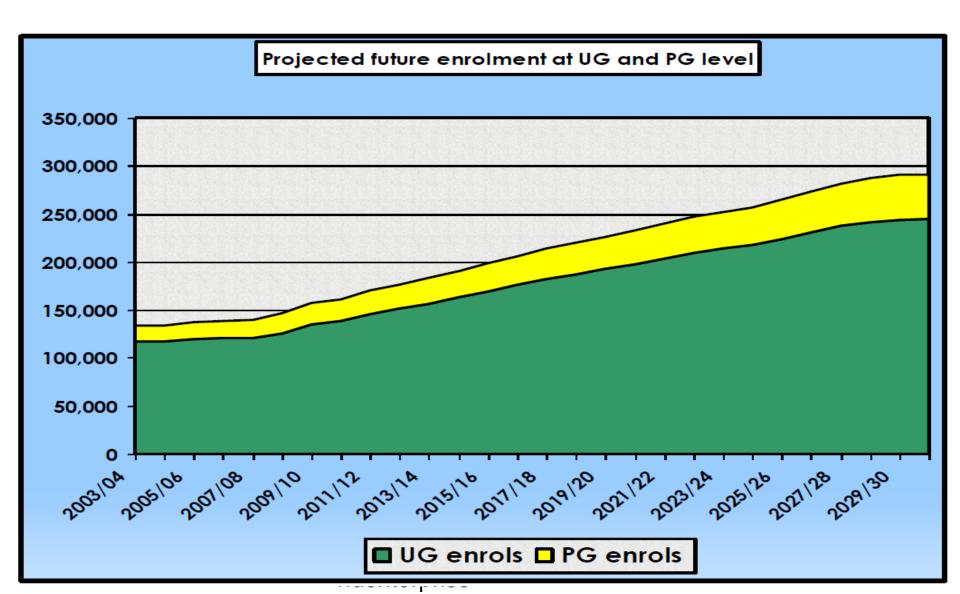
- Economy is small, open, and highly dependent on internationally traded goods and services;
- GFC & collapse in property and banking sectors has led to sustained recession since 2008, and significant increase in public sector deficit;
- Ireland entered IMF/EU/ECB bail-out programme in 2010.



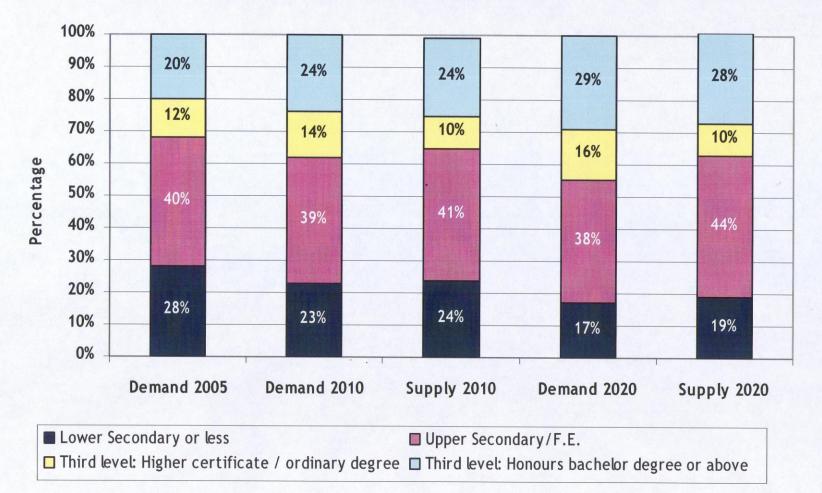
#### IRELAND GDP GROWTH RATE

SOURCE: WWW.TRADINGECONOMICS.COM | CENTRAL STATISTICS OFFICE IRELAND

### **Projected Enrolment**

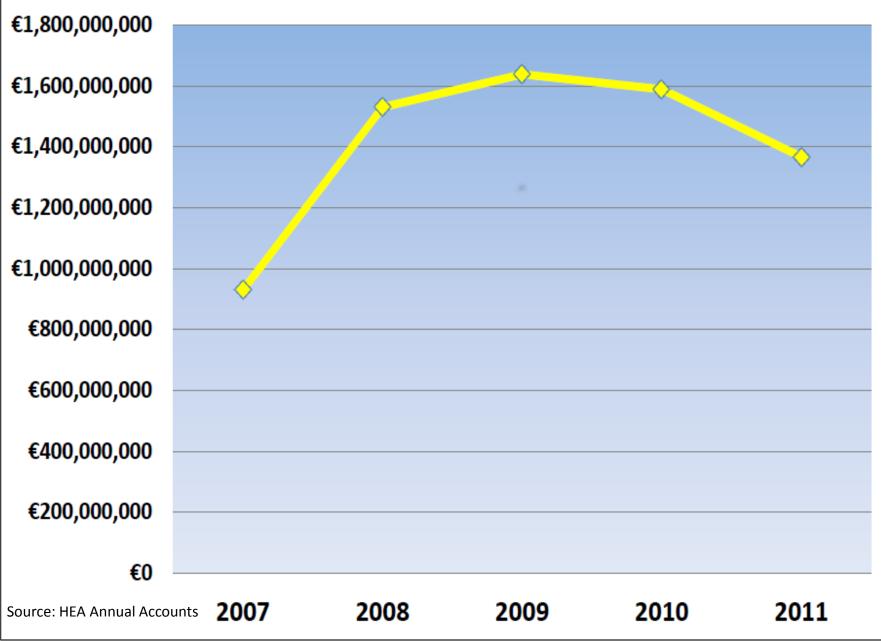


#### Supply & Demand Comparison



Source: EGFSN, ESRI, SLMRU

#### State Funding in Higher Education 2007 - 2011



# Policy Responses (1)

- Building Ireland's Smart Economy (2008)
  - Position Ireland as knowledge-intensive economy with a "thriving enterprise sector, high-quality employment, secure energy supplies, an attractive environment, and first-class infrastructure." Reform and restructuring of HE central feature.
- National Strategy for Higher Education to 2030 (2011)
  - Focus "overall system requirements", rationalisation/mergers and regional clusters; institutional contractual agreements tied to mission and performance related funding.
- Sustainability Study. Aligning Participation, Quality and Funding in Irish Higher Education (2011)
  - Greater cost sharing, including income contingent loans, to overcome absolute and relative decline in HE investment compared with its neighbours and competitors.



# Policy Responses (2)

- Towards a Future Higher Education Landscape (2012)
  - Each HEIs required to say how it fits within a "co-ordinated system of higher education" with an emphasis on mission distinctiveness; plans to be reviewed/approved by the HEA;
- *Research Prioritization Exercise* (2012)
  - Strategic framework marking end of laissez-faire in favour of "more top-down, targeted approach" with an emphasis on research linked directly to societal and economic needs.
- Qualifications and Quality Assurance of Ireland (2012)
  - A single QA authority and regulator for all FE and HE (public and for-profit sector).



# **Policy Directions**

- Move towards greater government steerage of HE and research system;
- Emphasis on performance/competitiveness of system as-a-whole rather than individual institutions;
  - Stress on specialisation rather than comprehensiveness;
- Greater accountability and transparency via data collection, output and performance metrics;
- QA increasingly government-driven rather than institutional-led;
- Shift to greater cost-sharing and using for-profit sector to absorb rising demand and drive efficiencies;
- Emphasis on research relevance with strong focus on S&T, and short-term job creation and innovation;
- Shift from HE as human capital development to being arm of industrial policy.



## 4. Reconfiguring Mass Higher Education?



# A Paradigm Shift? The Policy Choices

- HE has always been competitive, but the confluence of factors associated with globalisation and new economic reality has created new sense of urgency with implications for the "world order";
- Increasingly evident that no government can/will be able to afford to fund all the higher education that its citizens demands or society requires;
- Recent developments suggest a profound paradigm shift in our support for and model of mass HE.
  - How to educate a larger proportion of our population to a higher level while resources are reducing/reduced and at a time of increasing competition?
  - How should national funds for HE and Research be strategically oriented to ensure knowledge based growth and competitiveness into the future?
  - What are the trade-offs between public policy and private good, and between institutional ambition and system coherence?



# Policy Trade Off? World-class University

- Move away from egalitarianism to creating at least one w-c university:
  - Emerging global model (EGM) (Mohrman et al, 2008);
  - Harvard here model (Moodie, 2009);
  - Neo-liberal model (Hazelkorn, 2011).
- At a time when HE is in greatest demand and asked to provide greater impact/benefit for society:
  - W-C model increasingly unfettered by nation state, as it diversifies/privatizes funding base, recruits talent internationally, engages globally;
  - Encourage HEIs to gain prestige by being more selective, adjusting admissions policies, limiting class/cohort size, and shifting away from needs-based to merit scholarships;
    - Resources directed increasingly towards reputational amenities/services
  - Concentrate resources in a few institutions and around a few key disciplines which can deliver greatest "impact" according to rankings.



# Cost of "World-Class"

- "Being" or "becoming" a world-class university now drives many national and institutional strategies around the world, but the cost exceeds many national budgets;
  - "We want the best universities in the world....How many universities do we have? 83? We're not going to divide the money by 83." (Nicolas Sarkozy, President, France, 2009);
  - "The price tag to get one Nigerian university into the global top 200 is put at NGN 5.7 billion [€31m] annually for at least ten years' (National Universities Commission, Nigeria).
- "World-class University" estimated to cost ~\$2b annually (Usher 2006; Sadlak & Liu 2007; Sowter, 2008).
- For most countries, this is a zero-sum game:
  - "Sheriff of Nottingham" model because by diverting limited resources to a few institutions, it effectively "robs from the poor to pay the rich" (Currie, 2009a, p. 1198; Currie, 2009b).



# Wealth of U.S. Universities, 2011

|                        | Endowment \$b | SJT (ARWU) Rank | QS Rank | THE-TR |
|------------------------|---------------|-----------------|---------|--------|
| Harvard                | 31.7          | 1               | 2       | 2=     |
| Yale                   | 19.3          | 11              | 4       | 11     |
| Princeton              | 17.1          | 7               | 13      | 5      |
| Stanford               | 16.5          | 2               | 11      | 2=     |
| MIT                    | 9.7           | 3               | 3       | 7      |
| University of Michigan | 7.8           | 22              | 14      | 18     |
| Columbia               | 7.8           | 8               | 10      | 12     |
| Northwestern           | 7.2           | 30              | 24      | 26     |

# Policy Trade Off? Concentrating Excellence

- If higher education is a global indicator, inevitable more attention will be focused on ensuring its capacity/capability for competitive advantage;
  - National governments involved in greater steerage of system;
  - EU slowly, quietly and systematically *restructuring* European HE/research.
- Increasing concentration and stratification between elite and mass HEIs and systems exposes widening gap in "world-classness":
  - No evidence that more concentrated national systems generate higher citation impact than those in which output more evenly distributed; concentration most relevant in only four disciplines of "big science" (Moed, 2006; Currie, 2009);

- Korea: concentrating top talent in SNU distorting secondary school system as young people cram for university entrance examinations; sucking talent away from other universities, contributing to imbalance in economic growth by depriving regional universities of the best brains;

- Given uneven capability/capacity across EU, likely to be greater concentration and hierarchical differentiation. How does this sit alongside regional strategy?



# Policy Trade Off? Increasing Selectivity

- Increasing focus on recruitment of talent domestic/int'l high achievers:
  - Selectivity indicator of quality, and to attract wealthy high fee-paying students or philanthropists/investors;
  - "...following expansion and democratisation of higher education,...our ability to maximise the talents of the intellectually gifted have diminished..." (Murphy, 2011)
- UK: "unrestrained recruitment of students achieving AAB or equivalent at A-Level"
- DK/NL: immigration policy targets people with qual. from top-ranked universities;
- Liberal Arts colleges (NL/UK) way to build prestige within mass/publicly-funded universities;
- Texas: Pressure for funding alternative models based on equity and cost. But deregulation may set tuition and inequality soaring.



# Policy Trade-Off? Increasing Stratification

#### **Elite Research Universities**

- *Developed countries*: elite/selective HEIs are private cf. *Developing countries* elite/selective HEIs are public;
- On-line (free) used to extend market/global reach – putting pressure on non-elite institutions;
- Traditional, full-time high-SES and high achieving student;
- Campus with credentials and prestige capable of boosting one's status relative to others;
- Full-time, tenure-track faculty likely to continue and increase.

#### Mass Teaching HEIs

- *Developed countries*: mass recruiting HEIs are public HEIs cf. *Developing countries* mass recruiting HEIs are price-sensitive for-profit;
- Technology used in for-profits to reduce costs and increase learning in remedial and introductory-level classes – putting pressure on non-elite/mid-tier institutions;
  - "glocals": global aspirations with local
    experiences but restricted budgets.
- Part-time, mature worker-learner student of lower middle income backgrounds;
- Metropolitan/distance learning;
- Increasing reliance on non-tenured, adjunct/part-time faculty – often with multiple employments.

# Policy Trade Off? Measuring Quality

- As globalisation accelerates and market principles intrude further, growing need, arguably out of necessity, to regulate the marketplace;
  - Inexorably greater government involvement either directly in the process or in the use of the outcomes in policy and decision making.
  - Has HE been too slow to satisfy the public? What is Quality? How is it measured or demonstrated? Who determines?
- Rankings and transparency instruments at supra-national level, e.g. EU/OECD, represent significant paradigm shift and signals extent to which HE is losing role as primary guardian of quality (Harman, 2011, 51; Dill and Beerkens, 2010, 313-315);
- Open Source/Social Networking goes further, putting tools directly into the hands of students and other users, by-passing rankings and HEIs.
  - Rate-my-professor, etc.
  - MyUniversity Australia government, <u>http://myuniversity.gov.au/</u>
  - Winddat platform Catalunya QA, <u>http://winddat.aqu.cat/</u>



# Policy Trade-Off? Value and Relevance

- Shift from measuring inputs and outcomes, to impacts and benefits;
- Increasing emphasis on "market-driven approach" (e.g. patents, licenses, HPSU, and job creation)
  - Horizon 2020: bridging gap between research and the market via development of technological breakthroughs and translation into viable products with real commercial potential;
- "Instrumentalist" approach favours bio-, medical/technological sciences, and reinforces disciplinary hierarchy in which AHSS struggles;
  - Pressure to demonstrate (wider) value and relevance a path arguably (hard) sciences have travelled since Vannevar Bush, *Science The Endless Frontier* (1945).
- Despite the inability of rankings or traditional bibliometrics practices to measure all disciplines, "third mission"/regional engagement or civic and social responsibility, they continue to be favoured by government, government agencies and the academy.



## Conclusion



# In Conclusion

- During 1980s, Reagan promulgated a strategy for economic growth based on cutting the top tax bracket from 70% to 50% and then to 28%;
- "Trickle down" economics or "Reaganomics" argued that putting more money in the hands of the elite would create more jobs and lessen inequality;
- International evidence, however, shows the results have been the opposite of the one predicted;
- Is there a lesson for us today?



# **Policy contradictions**

Governments making profound changes to HE and research systems resulting in policy trade-offs and contradictions:

- Pursuing a resource-intensive "world class university" strategy at the same time public budgets and affordability declining, and demand of/for HE is rising;
  - Questioning the "social contract" for mass public higher education, and asking if too many people are being educated;

 Concentrating excellence in a hand-full of universities at the same time as need to enhance human capital development and regional capability;

 Differentiating between teaching & research missions at the same time evidence supports need for greater transversal/critical skills via enhanced integration between teaching & research;

 Rewarding traditional academic outputs (via rankings or other processes) at the same time there is a need to value civic and social responsibility;

– Attracting talent from abroad while failing to nurture talent at home.



# New Global Order?

- HE is part of wider geo-political struggle in which "governments need to invigorate their national innovation systems in the context of a global knowledge economy" (Robertson, 1998, p. 227).
- Many of the reforms being pursued are necessary and inevitable and arguably late in coming;
- However, are globalisation and the GFC being used to justify pursuance of elite agendas because of the wonderful things "world class universities" supposedly do for the rest of us?
- Has the public's interest become confused with private interest?



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