Scenarios for Higher Education, 2020
or
When Will China Invade Iran?

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1. Introduction

Scenarios for the future course of higher education are more likely to occur if they are rooted into an understanding of the dynamics behind the demand for and the supply of higher education.

This reflection on a number of scenarios presented by OECD[1], by CHEPS [2] and the Council of Graduate Schools[3] takes as point of departure:

- The demand for higher education will be increasingly determined by three factors which are interrelated
    - Talent as a major source of international competition (par. 2.1);
    - The discovery of new talent as a major source of social cohesion (par. 2.2);
    - Life long learning driven by a continuously changing labor market.

  Of course, the number of students in any one country will also depend on demography. Demography, however, is – unless major disasters would occur – the least uncertain, as the participants in higher education in 2020 are already born.
- The supply will be impacted by
    - The inherent inertia in the existing systems which respond only very slowly to changing market conditions and where the speed of response is extra slowed by national financing and legislation (par. 3.1);
    - The decreasing status of higher education institutions leading them to look for allies – with business as a first choice (par.3.2);
    - Strategic alliances in order to establish a market reputation and to increase the scale of operation (par. 3.3);
    - Finance and differentiation (par. 3.4)

We conclude (par. 4) with …. *if*…. *then* scenarios for the future. Among them is the international division of "power" (yes: there is such a thing!) in higher education, where the "ifs" always refer to policy. Among these *if* …. *then* ….. statements are:

- *If* immigration rules in the US and the cultural climate (Patriot act) are not quickly reversed *then* the US will lose a substantial comparative advantage (through the loss of the influx of foreign talent);
- *If* Chinese universities start teaching in English *then* China will be importing international top talent (rather than loosing talent through brain drain);
- *If* Europe can shed its tuition phobia and the nationalistic outlook on higher education (prevalent in all of the member countries of the EU) *then* Europe might be a new pole of attraction of international talent.

The international division of "power" in higher education might well be aligned with an international restructuring in political power. This is suggested in the title.
The international security threats of Iran, and the threats in oil dependency, are now – as by common agreement – looked at as challenges the US should meet. By 2020 they might well be viewed as threats in which China has a role to play in answering them. In this way the title also reflects the notion that the future course of HE is dependent

[1] Vincent – Lancrin, Stephan, Building Futures Scenarios for Universities, 2005
[2] CHEPS scenarios: The Higher Education and Research Landscape 2020, 2004
[3] Graduate Education in 2020: Forces Influencing Our Future

on major political, economic or environmental events, even though the past 50 years have shown a remarkably stable development, hardly affected by such events as for example the Cuba Crisis, the fall of the Berlin Wall or 9/11.

2. Demand for Higher Education

The number of students in higher education is likely to be in 2020 substantially higher than it is now (in 2006). To get an impression of the magnitude of the increase it is useful to look at the increase in the recent past, as shown in table 1.

[Table 1 here]

In the table also the increase in Gross World Per Capita Product is presented.
It turns out the increase in the participation to higher education is much faster than that in per capita product. If world economic growth will continue on the pace of the past 15 years, then a total growth of student numbers worldwide with some 50% in the next 15 years is definitely not an upward limit but rather more on the lower side of expectations.

The relation between economic growth and participation in higher education is of course a highly complicated one which at the end is determined by the process of individual decisions and the context in which they take place.

The decisions are taken in a social context which is shaped on the one hand by Government policies on HE capacity and HE financing (including on tuition fees) (can I participate? and: can I afford to participate?) and on the other hand by the relative demand for HE graduates (do I find a job? and: is it a well paying job?).

The worldwide growth in the demand for HE masks the huge differences in the world due to differences in:

- demography, where e.g. Japan is already experiencing a decline in university enrolments due to a decrease in the number of youngsters, but where in particular middle income countries and – to a lesser extent – lower income countries will experience a vast increase as a result of an increasing young age group and increasing prosperity;
- the impact of lifelong learning, where in the US now a substantial part of the HE students is of the non-traditional age groups (25 years and older);
- international mobility, where in the UK now 11% of the HE students is foreign (in Australia 19%, and in the US 4%);
- the use of untapped talent.

Let me focus on the last two items as the key items for Government policy, allowing for *if … then* scenarios. I leave life long learning aside as it seems that every government wants to implement life long learning. Government policy is irrelevant for the impact of demography on the demand for HE in 2020. The children and adults (!) who will participate in 2020 are already born. In other words: there is only one demographic scenario (if one excludes major disasters of the magnitude of the 13th century plague in Europe).

2.1 Policy and International Mobility

International mobility of students is likely to have been a strong component of international competition: countries (in particular the U.S., but also the U.K. and now Australia) which could attract foreign students are likely to have seen a contribution of this attraction to their economic growth. The mechanisms are manifold. First, attractiveness for foreign students generally is accompanied by that for foreign researchers. Second, it is generally the brightest and most energetic that are mobile, contributing to the quality of HE. Third, some of these foreign students might stay. Lastly, they are – back in their home country – ambassadors, spurring trade relations.

These benefits are likely to exceed the costs, even if the receiving country pays the full costs. Of course, when the foreign student bears the full costs, the benefits are even larger and include the "export" of HE as a product.

In table 2 I have tallied the relative participation of foreign students in the three front running countries (in this respect). All three top countries in terms of the percentage of foreign students rank among the top 5 in competitiveness.

[Table 2 here]

Causality between competitiveness and participation of foreign students can only be established by looking in detail in the selection process of students for study abroad. The available evidence shows that – indeed – students want to study in countries which are economically strong[4]. But at the same time the use of the English language is a key factor. Hence the strong position of the three countries in the table.

Table 3 shows the growth in mobility of students over time.

[Table 3 here]

Note that the number of foreign students grew much faster than that of the total number of students in the period 1990-2003.
One may expect this to continue. To give an impression of the potential development: let the total number of students increase with 50% in 2020 from approximately 50 million in 2006 to 75 million in 2020 and the percentage of foreign students rise to 6%, then the total number of foreign students would be around 4.5 million: more than double the number in 2003.

Although there are many uncertainties, still it would be useful for universities and governments alike to prepare for this more than doubling of the number of foreign students. It is also important then to reflect on the nature of the choice for studying abroad.

Students from country X go for study to country Y for a number of reasons:

- An international experience which will pay off on the labor market;
- The perceived quality of the education;

[4] Academic Cooperation Association, Perceptions of European Higher Education in Third Countries, 2006 (Mimeo)

- The access to HE in country Y, including the costs and the language of instruction;
- The intellectual, cultural and political climate of the country.

Let us translate this into the comparative advantages to attract foreign students now, distinguishing eight areas in the world. This is depicted in Figure 1:

[Figure 1 here]

The research of the Academic Cooperation Association (footnote 4) supports this figure as far as Europe is concerned. This study was based on large scale surveys in six target countries: China, India, Mexico, Brazil, Russia and Thailand, as well as on interviews and desk research.

Figure 1 allows for *if-then* statements with respect to the future:

- The U.S. will be losing its edge if the Patriot act and its concomitant policies are continued and expanded, despite its climate of innovation and dynamism.
- Europe (outside of the U.K.) could increase its attractiveness by adopting English in selected (top) universities. Increasing the differentiation in HE is a prerequisite for maintaining quality.
- China could be a runner up if new universities adopt English and if the intellectual climate improves further.
- India is not (yet) a place where foreign students would go, simply of capacity constraints.
- Australia is likely to be the winner, while the rest of the world is still struggling to build up quality HE and keeps hemorrhaging from brain drain.
- Latin America is a splendid place, with an attractiveness for Spanish speaking students but with serious capacity constraints in quality HE.
- Japan has a distinct cultural and language barrier for foreign students and has not shown a great interest in attracting them.

2.2 Social Cohesion and Equality of Opportunity

The tensions between social and ethnic groups in many of the OECD countries give rise to renewed efforts to harvest the pool of talent. I am focusing on this issue from the perspective of the demand for HE.

The “old” pool of talent – children in low SES (Socio-Economic Status) groups with high abilities – had a lot of patience. They would make it in life– and if they themselves only made a slight move up the ladder, then their children would make it. The social integration of low SES children in the HE went slowly and with relatively few tensions.

The “new” pool of talent requires faster action for social cohesion to remain reasonably intact. The U.S. has acted quite forcefully with affirmative action. India has a reservation and prioritization policy for low caste students for places in high quality education. But in many other OECD countries substantial tensions between newcomers and the existing population build up. Government policy aimed at reducing costs for HE through extra scholarships for children from minority groups, preferred placement or affirmative action – however unpopular – would contribute to

social cohesion. It also could have a considerable (positive) impact on the demand for HE.

To exemplify: in the U.S. the white working age population is expected to decline from 82% to 65% between 1980 and 2020. At the same time the minority population (with much lower HE participation rates now) is expected to double – and the Hispanic Latino position to triple, from 6% to 17% (CGS, page 5). The composition of the college freshmen class of 2020 will – both in the U.S. as in Europe – be a “majority minority” group (with the majority of students coming from minority groups).

3. Supply

It is likely that the supply of HE will increasingly be determined by "good practice". This is what international competition does to you. Accreditation and quality control will become more internationally oriented, guided and motivated.
"Protocols" for the delivery of education will arise – how students learn easy and well. This is an attractive picture: an overall quality improvement of HE.

Also the benefits of technology in particular ICT are bound to penetrate and permeate HE worldwide, allowing for many more combinations of learning at home (wherever home is) and in contact with other students and teachers .
The difference between "open" HE and "normal" education disappears (or has it already disappeared in practice, while it only exists in the form of institutions?).

Policy in these contexts – in so far as relevant – is endogenous: it will be forced upon governments by external powers, rather than determined by creative politicians with a vision. However, the speed of adjustment is decided by policy (or the absence thereof). There is an inherent inertia in HE institutions which is generally bolstered, not weakened by national policies, which paradoxically enough are often "invented" to speed up adjustment. The *if* here is: internationalization of policies, the *then*: the consequences in adjustment (par. 3.1).

The consequences of the loss of status of HE institutions is a second element which raises *if* and *then* scenarios on the organization of the delivery of HE with a focus on mergers, networks and strategic alliances, which so clearly make up the CHEPS scenarios.

3.1 Inertia

HE is a very special industry. Adam Smith only mentions education in its institutional arrangements (in his book: the Wealth of Nations). This was far sighted. Indeed, the institutional arrangements of education make it a very specific sector. An industry like (higher) education never exhibited "normal industry" characteristics. HE institutions almost never relocate, almost never had branches. They seem to be permanent fixtures in their environment.

They are notably slow to adapt to social needs. It took in the Netherlands some 30 years to reduce the average length of the academic study. This length was based on

5% participation of the age group (in 1960), while some 30 years later 15% of the same age group participated.

A breakthrough in Europe has been the Bologna agreement, creating a framework for better use of the European space for students, but also for speeding up adjustment.

International competition – however faint in HE, which operates largely on a local market – would make it more likely to look for international good practice.

However, in the implementation of the Bologna agreements much of the adjustment depends on the implementation, country by country. Here we see that every new law in Europe is more "national" than the previous one, in the sense of being different from that of other countries, making international mobility more difficult, despite the common Bologna framework of studies.

If we would presently rank the regions of Figure 1 by degree of inertia, then Europe would still rank very high (presumably with Japan).

A special role is played by new HE institutions (sometimes for – profit institutions). They could indeed speed up adjustment and quality improvement, but at serious costs to the existing knowledge infrastructure. It is quite likely that in the social sciences and in the arts the new institutions might just cherry pick, leaving the existing institutions with the “chores” which are underfinanced. The policy question for many countries is whether to go the WTO route for HE and open up the possibility for public finance of any newly established HE institution which satisfies accreditation and quality control guidelines, or to stay with a rather inflexible but well trusted system.

3.2 Status loss of HE institutions

HE is constantly losing status. The value people place on learning as an accomplishment has been decreasing in rich countries and is likely to continue to decrease. Other values as "money" and "beauty" will continue to become more important. The "Beauty and the Geek" reality show is an expression of this trend, where educational accomplishments are put on par with great breasts.

It is interesting to note that less and less the business and political elite are connected to a recognition of the role (graduate) education in their careers (see e.g. Jack Welsh's recent book: "Winning", April 2005). In their communications they de-intellectualize. There is no reason that this trend will not continue.

The implication is that HE – deprived of a pedestal of its own – will have to find allies in society. The best and most likely ally is the business world – which has a strong interest in well trained manpower.

Joint operation between business world and HE is likely to occur in the future more and more often. Government policy can make this easier or more difficult through the governance of public HE institutions. Some Governments (i.e. the Netherlands) have provided ample room for business to be represented in the boards of trustees of public institutions.

The misunderstanding is that business would focus on short-run profits to be derived from their university connection. The experience of university leadership is different. It is politics which generally is short-run, while corporate leaders often are the far sighted with a keen eye fir the head of basic and independent research and teaching.

The *if .... then ....* question is here (again) one of policies which permit a close cooperation between universities and business, The CHEPS future scenarios show for Europe a strong distrust for business as an ally for HE.

3.3 Strategic Alliances

Can HE increase quality through (international) strategic alliances? Mergers have become highly suspect both in business as in HE as a means to improve the position of the business or the institute of HE. But a large proportion of the respondents in the Delphi method (used by CHEPS to explore the future of European HE) thinks that closer ties between HE institutions are inevitable to operate on a sufficient scale, presumably both in terms of the capacity to invest in new educational developments, as in terms of marketing.

The interesting observation is that the drive for strategic alliances has been with HE now for a couple of decades, but at the same time it was by and large ignored.

I would surmise that by 2020 such alliances, in the form of joint programs of research and teaching, will be a common characteristic of most HE institutions. But this will only be true if national HE policies are conductive to such cooperation (and that is not yet the case, generally speaking).

3.4 Publicness: Finance and Differentiation

Can the public HE institutions survive? This question may have different dimensions in different regions of the world. For Europe we speak about public HE *systems* which are subject to decreasing finance and have fixed (maximum) tuition costs which are generally too low to survive international competition for top talent. The publicness also has an inherent feature of equalization and as such a loss of differentiation, while the need for more differentiation is broadly underserved.

The loss of differentiation is most plainly visible in the pressure to bring higher vocational education and research universities on par in financing and development opportunities (as is visible in Ireland and in the Netherlands). But also within the segments one sees that equalization is the name of the game.

I see this inherent in the publicness of the system: Parliaments and cabinets are not in a position to allow for differentiation. For Europe's competitive position in international HE, it would be important to do away with the tuition phobia and allow for differentiation.

4. If – Then

There seems to be a world to win for future HE students by truly creating an international market - to begin with in OECD countries - guided by a common legal framework. Common accreditation, common tuition fee rules etc. The internationality of the market is good for those who want to study abroad. But it is also good for those who choose to study nearby home, as the international market would generate strong incentives for quality improvement.

But this scenario is very iffy as national governments will not easily surrender power over HE to others, be it the EU or other supranational powers.

Table 1

Worldwide elasticity of the demand for HE

	1991	***2000***	***2003***
Percentage of Students in HE	**14,5**	**20,1**	**23,5**
Gross World Product per Capita (GWP per capita constant 2000 US$)	**4554,8**	**5237,1**	**5361,7**
		2000/1991	***2003/2000***
Elasticity		**3**	**7**

(Source, OECD, WDI)

Table 2

Foreign Students as a percentage of total
(selected countries/regions)

Foreign students/Total students HE and Ranking	***1997/98****	***2002/03***	***Rank 2003*** ***(in terms of total number of foreign students)***
USA*	**3**	**4**	**1**
UK*	**11**	**11**	**2**
Australia*	**13**	**19**	**5**
Europe **	**?**	**3**	**_**

*Source: * OECD - EAG*
*** EURODATA*

Table 3

Foreign students/ Total students HE (millions)	***1980***	***1990***	***2003***
Foreign	0,7	1,0	2,0
Total	24,0	33,6	47,3
Percentage	**3,0**	**3,0**	**4,3**

Figure 1

Comparative advantages for attracting foreign students 2006

	+	-
US	Language Climate Quality	Patriot Act
Europe	Climate Quality	Language
China	Quality emerging	Climate Language
India	Language	Capacity constraints in Quality Institutions
Australia	Language Climate Quality	
Latin America	Language (Spanish)	Capacity constrains
Japan	Quality	Language Climate
Rest of the World		Quality Climate Language