European Expert Network on Economics of Education (EENEE)

A Policy Agenda for Improving Access to Higher Education in the EU

EENEE Analytical Report No. 9
Prepared for the European Commission

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March 2011

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European Commission
Education and Culture

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March 2011

Abstract

If forces are to be mobilized in Europe to successfully exit the crisis and create a smart, sustainable and inclusive growth path towards a knowledge-based society by 2020, European Higher Education has to play a more central role. Beyond delivering excellence in research output, it should also achieve a wide access and throughput of students to deliver the necessary skills for Europe 2020. But the European Higher Education system does not seem currently to be in a position to achieve these aspirations in a number of important ways. This report reviews the evidence on how the Higher Education system in Europe is currently performing in terms of access, as well as the past and current policy agenda in Europe for improving access to higher education. It provides summarizing conclusions for the future policy agenda in Europe.

1. THE IMPORTANCE OF ACCESS TO HIGHER EDUCATION FOR EU GROWTH

As Europe approaches the world technology possibility frontier and leaves the era of catching up behind, innovation and highly-educated people have become crucial drivers of its growth potential. [1] With competition from fast emerging countries, the EU needs to develop sustainable strongholds in high-skill intensive activities.

[1] Krueger and Lindahl (2001) provide a survey of the literature on the relationship between growth and education in general. For the link between Higher Education and Growth see a.o. Acemoglu et al (2006), Aghion (2006). A large part of the empirical research aims at verifying whether the predictions of the growth theories find support in the data. The first results were quite disappointing in that regard. Benhabib and Spiegel (1994) or Barro and Sala-i-Martin (1995), for instance, find that GDP growth is statistically not associated to increased investments in education. Later work with more refined methodologies and more detailed data on education deliver more positive results (eg Cohen & De Soto (2007). But overall, it is fair to say that much better datasets on education are needed to be able to assess more exactly its social value, and how to magnify this value for a given level of spending.

Beyond the globalisation challenge, the challenges coming from ageing, environment, security… all require highly developed skills to generate new technological solutions for these challenges. The ageing challenge at the same time implies that a smaller pool of young talents will be available to be "skilled". As a consequence, it will become more important to educate the pool of young more intensively, ie to improve access to higher education for a wider group of people and to ensure a higher throughput to tertiary graduation.

The current crisis has put education and training into an even more critical position. Governments need future growth as a successful crisis-exit strategy. Public investments in (higher) education are a pivotal cornerstone for future post-crisis growth. Public investment into (higher) education should therefore remain high on the priority list of public spending. But, given the current precarious fiscal position of most European countries, it is important that a Higher Education Access Policy Agenda uses public financing as effectively and efficiently as possible.

2. ACCESS TO HIGHER EDUCATION ON THE EU POLICY AGENDA

Higher Education is not only important from a personal development perspective of the individual taking Higher Education, it also has a high societal development impact. As section 1 already made clear, increasing access to Higher Education will be pivotal in Europe to be able to provide the skills needed for a smart and sustainable growth in future. And beyond the economic dimension, access to Higher Education also plays an important role for inclusive growth, reducing the risk of social exclusion.

Many international bodies and governments have recognized the economic and societal reasons for increasing and widening access to Higher Education. Also European Commission key documents have since long listed the importance of improving access and the drive towards more equity and social cohesion in Higher Education in Europe. The Lisbon Strategy already put Higher Education on Europe's policy agenda[2], as also its successor, *Europe 2020*. The Council Conclusions of 11 May 2010 recognize that "*If Europe is to compete and prosper as a knowledge-based economy based on sustainable, high levels of employment and reinforced social cohesion –as envisaged in the Europe 2020 strategy, the role of education and training in a lifelong learning perspective is crucial*."

Among the five headline targets selected to monitor progress on *Europe 2020* is the "share of the population aged 30–34 having completed tertiary education" , together with the headline target on school drop-outs (10%). The headline target on tertiary education is targetted to increase from its current level of 32% to 40%. These two benchmarks were chosen among the list of five benchmarks agreed in the framework for European cooperation in education and training ("Education and Training 2020"). One of the seven flagship initiatives implementing the *Europe 2020* strategy, include "Youth on the Move", an initiative to enhance the performance of education systems in Europe and to reinforce the international attractiveness of Europe's higher education. Higher Education also plays an important role in the "Innovation Union" flagship initiative. The EC's October 2010 Innovation Union communication is very

[2]E.g. 'Mobilising the brainpower of Europe: enabling universities to make their full contribution to the Lisbon Strategy', COM(2005) 152 of 20 April 2005 and Council Resolution of 15 November 2005.

explicit: "*we need more world-class universities, raise skill levels and attract top talent from abroad*".

While the discussion on Higher Education in the Innovation Union communication focuses on achieving excellence, the promotion of social inclusion through Higher Education is also increasingly present. Within the Bologna Process, the Education Ministers identified in their Leuven Communiqué of 2009 the social dimension as one of the priorities for the coming decade: "Access to higher education should be widened by fostering the potential of students from underrepresented groups and providing adequate conditions for the completion of their studies". The EC Council Conclusions of 11 May 2010 noted that "*Education and training systems across the EU need to ensure both equity and excellence. Improving educational attainment and providing key competences for all are crucial not only to economic growth and competitiveness, but also to reducing poverty and fostering social inclusion. .... European cooperation can help identify ways to promote social inclusion and equity, while not compromising excellence.*" The twin objective of excellence and inclusion casts the discussion on the social dimension in Higher Education in Europe not in a purely egalitarian perspective, but in a discussion about ensuring equal opportunities for all talents, translated into equal chances of access, treatment and outcome.

If forces are indeed to be mobilized in Europe to successfully exit the crisis and create a smart, sustainable and inclusive growth path towards a knowledge-based society by 2020, European Higher Education has to play a more central role, achieving wider access and excellence at the same time. But the European Higher Education system does not seem currently to be in a position to achieve these aspirations in a number of important ways. Section 4 reviews the evidence on how the Higher Education system in Europe is currently performing in terms of access. Section 5 reviews the past and current policy agenda in Europe for improving access to higher education. Section 6 discusses indicators for policy to monitor access to Higher Education. Section 7 provides summarizing conclusions for the future policy agenda in Europe. But we first start in Section 3 with briefly reviewing the insights from economic analysis on private incentives to invest in higher education. Public agencies need to understand better what drives the individual to choice on whether or not to engage in Higher Education. This will allow policy makers to leverage private incentives as much as possible, thus increasing the effectiveness of public intervention to improve access to Higher Education.

3. THE PRIVATE INCENTIVES FOR ACQUIRING HIGHER EDUCATION

The economic literature has put forward several demand-side determinants of investment in Higher Education (see Becker 1967, Freeman 1986 or Heckman et al 2005). According to the Human Capital theory, individuals trade off the gains of acquiring Higher Education (as witnessed by a higher probability of obtaining jobs, higher wage premia when obtaining jobs, more job satisfaction,…), with the costs of obtaining Higher Education. The latter include not only the direct costs of training, like tuition fees, but also the foregone earnings.

Factors influencing this private cost-benefit analysis include

(i) the standard factors that drive the expected returns from obtaining extra schooling net of direct and opportunity costs of schooling

(ii) liquidity constraints and financial market failures that prevent individuals from financing their tertiary studies

(iii) the disutility or effort required to pursue tertiary education;

(iv) any structural and demographic trends that may effect future earnings, including gender-specific or socio-economic drivers shaping social or behavioral determinants of investment in Higher Education;

(v) the quality of supply of Higher Education services.

According to this *Human Capital perspective*, the individual's choice for Higher Education will be "easier" and/or more "effective" if

(I) job prospects and wage premia are higher

(II) financial costs are lower

(III) ability and pre-training is higher, as this raises the cost-benefit analysis in favor of exerting more effort

Boarini et al (2009) find that the for improving Higher Education graduation rates it is significantly important to (i) raise the Internal Rates of Return for Higher Education, (ii) to improve the flexibility and accountability of Higher Education supply and (iii) to increase the availability of funding. Graduation rates are found to be negatively affected by a country's output gap, possibly reflecting the better employment and income perspectives for non-graduates during periods of strong economic activity; Their policy conclusions to improve graduation rates include (i) reforming the Higher Education sectors, making them more flexible and accountable for supplying demanded Higher Education services; (ii) relaxing the financial constraints;

Another strand of the economic literature stresses that the choice for Higher Education is a *family choice* rather than an individual one (Becker & Thomas (1976)). According to this theory, parents influence the choice of the children's education in various ways: (i) by nature, passing on their genes affecting ability (ii) by financing (or not) their children's education and (iii) by nurturing "educational adept behavior". As a consequence, the socio-economic environment of the individual will influence directly the returns and/or costs of obtaining Higher Education. It will also influence this choice indirectly by influencing the information/uncertainty of costs and benefits of obtaining Higher Education.

Empirical studies (eg Haverman & Wolfe (1985), Cameron & Heckman (2001), Manski et al (1992) confirm the importance of family structure (eg single parenthood, ethnic origin, parental human capital…) as significant on entry and success of education in general. Specifically for Higher Education, Ortiz & Dehon (2008) study for Belgium the impact of family background on success in first year university success. Belgium is an interesting "case" to study as its Higher Education Access is

characterized by almost "free entry", with no entry requirements and low tuition fees. This generates high first year entry rates, but also high rates of first year failures, making it an interesting observation field for studying the factors that influence first year failing, conditional on entry. The authors find a significant effect of *gender*, with females being significantly more likely to succeed, conditional on entry. Students having required a higher quality of prior secondary schooling are also more likely to succeed, confirming the importance of *pre-HE training*. When it comes to *socio-economic background*, the authors find that father's profession and the mother's education affect significantly the first year success rate. The authors also check the impact of *ethnic origin/immigration*. They find a critical importance of disentangling different types of immigration to find significant effects. Students immigrating for Higher Education purposes are found to have a higher probability of success. Once corrected for differences in socio-economic background, students as second or third generation of immigrants, are not found to graduate with different success probability.

In summary, the empirical evidence suggest as likely significant barriers to access: poor pre-training, unfavorable socio-economic background, lack of finance and poor job prospects.

4. EVIDENCE ON ACCESS TO HIGHER EDUCATION IN EUROPE

This section takes a look at the current performance of the Higher Education sector in Europe in terms of access.

4.1. Relatively few young people in EU enter in higher education

Entry into Higher Education occurs at young age. People older than 25 rarely embark on Higher Education [3] Most entry into Higher Education is by secondary school leavers[4]. Access to higher education is highly dependent upon successful participation at earlier stages of education. Improving completion rates of upper-secondary education is important for the access it allows to higher education and for paving the way to participation in Lifelong Learning activities. Despite catching up, higher education institutions in the EU attract a lower proportion of secondary school leavers, in comparison with its most important competitors [5]. This implies that higher education in Europe is still not an attractive option for a significant part of pupils having completed upper secondary education.

[3] Eurostat (2009) reports that less than 2% of people aged >25 enter Higher Education (ISCED 5-6), although this is somewhat higher in the Netherlands, Finland and Sweden.

[4] Eurostat (2009) reports that higher education entrants account for 85 % of qualifying graduates of general secondary schooling in EU-27.

[5] About 25% of young people aged 18-24 years were enrolled in higher education in the EU 25 in 2002, which is much lower than in the US (37.7%) (OECD (2006)).

4.2. The Proportion of EU population that graduate from higher education is relatively low

Table 1: Higher education attainment rates

(% of population aged 25-64 with completed tertiary education (2005)

US	JAP	EU
38.4	37.4	22.8

Source: EC-ENTR, European Innovation Scoreboard 2007

Table 1 indicates that on average the higher education attainment in the EU is around 23%, which is considerably below levels in the US and Japan. Although it has been steadily growing over the last years in Europe (with an average annual growth rate of 2.8% between 2002-2007), it nevertheless remains at low levels (24.3% in 2007: Source EIS 2009).

This low European performance on Higher Education attainment motivates the inclusion of a headline target on tertiary education attainment in *Europe 2020*: "the share of the population aged 30-34 who have successfully completed university like education (ISCED 5-6)", targeted to be 40% by 2010. This specific indicator stood in 2009 at 32.3%, indicating the substantial challenge to bridge the gap. Catching-up on this indicator is not merely a linear process of getting more of the same. A wide heterogeneity exists among European Member States in terms of performance on this indicator. Countries, like Denmark, Ireland, Finland, Sweden, Belgium, France, UK, Netherlands, Lithuania, Spain are already above or close to 40%, while countries like Romania, Slovakia, Czech Republic and even Italy are currently below 20%. In terms of fields, the attractiveness of Science & Technology disciplines is a problem in Europe, particularly when compared with Asian countries. More than one third of the graduates in Europe are in Social Sciences Business & Law, while Science & Technology graduates account for less than a quarter of all graduates. Although female students are on average overrepresented in the graduate population, they are particularly underrepresented in Science & Technology.

4.3. Graduation rates in EU are below OECD average

At present, too many enrolled tertiary students leave the European universities without an academic degree. According to OECD data, survival rates in higher education in the 13 EU countries for which data was available amounted to only 66% in 2000, compared to an OECD average of 70% with 79% in Korea and 94% in Japan.[6]

Completion rates in Europe vary widely between countries. Eurostat (2009) reports the lowest rates in Italy (45%), and the highest rates in Ireland (83%), Denmark (81%) and the UK (80%). .

[6] Survival rates are calculated on the basis of the number of graduates divided by the number of new entrants at the typical age of entrance.

4.4. Access to Higher Education is more difficult for socially disadvantaged groups

Socially disadvantaged groups are underrepresented in Higher Education. Eurostat (2009) reports interesting evidence for the EU on the social dimensions of higher education access. It uses as a measure of social disadvantage, the education of the parents, a factor that also in economic analysis was found to influence graduation rates (cf Dehon & Ortiz (2009)). Eurostat (2009) split the graduation rates by education of the parents, classified in three categories LOW= completed at most lower secondary, MEDIUM= completed at most upper secondary and HIGH= completed tertiary (ISCED 5-6). They find that for every 100 persons whose parents have completed at most lower-secondary education, 17 have completed higher education themselves. This share rises to 32 % for those students whose parents have upper-secondary education and reaches 63 % for those whose parents have completed tertiary education. This implies that students whose parents have completed tertiary education are 3.8 times more likely to successfully complete higher education as compared to students whose parents have at most lower secondary education. The impact of the educational level of parents on successful completion of higher education is especially high in the Czech Republic, Hungary, Poland and Slovakia as well as in Italy and Austria. Finland is the country with the lowest impact of parent education on graduation rates, probably because it is characterized by less heterogeneity.

The continuing transmission of disadvantages through family backgrounds tends to affect men and women equally[7]. But the situation is improving: young people from low educational family backgrounds have better chances of graduating than their elders did in the past.

4.5. Tertiary Education leads to lower unemployment and higher earnings, also in EU, but there is high dispersion across EU countries

Demand for higher education is driven by the returns from education (see section 3). Not only do graduates expect relatively lower unemployment rates and better employment prospects, they can also expect a faster rising skill premium.

The evidence indeed supports the better job prospects from higher education, also in Europe. Employment rates of holders of a tertiary education are significantly higher than for people achieving only lower levels of education. Expressing the unemployment rate of the tertiary educated relative to the unemployment rate of those with upper secondary education shows comparable outcomes for the EU and the US, but also a considerable variance within EU countries (van der Ploeg & Veugelers (2008)). On average in the EU-27, unemployment rates of tertiary educated people aged 20-34 is 7.1% (2003-2007), compared to 10.9% for secondary educated, which leaves a ratio between the two of 0.65. Better employment prospects do not differ significantly by gender.

[7] In terms of gender, more than 50% of entrants into Higher Education are already female, but this is substantially lower in sciences and engineering.

As Table 2 shows, the Southern countries: Italy, Spain, Portugal and Greece display a negative or very small increment in employment probability when obtaining higher education, as compared to secondary education. This is all the more unfortunate as the employment prospects in these countries are on average not very favorable, leaving an unemployment rates of people with tertiary education that is above EU average. Finland, Poland and Germany enjoy the highest increment in the chance of getting a job after graduating from higher education, but for Poland this still leaves an unemployment rate for the tertiary educated of 10.1%.

Table 2: Unemployment rates of people aged 20-34: tertiary educated relative to secondary educated

IT	PT	EL	ES	IE	EU-27	SE	FR	RO	UK	BE	DE	PL	FI
1.15	1.14	0.92	0.86	0.71	0.65	0.68	0.67	0.64	0.62	0.56	0.49	0.45	0.44

Source: Own calculations on basis of Eurostat (2009), 2003-2007 average

Furthermore, the evidence also shows that average income increase with education level. Indeed, average income in the EU27 is about 63% higher for tertiary educated as compared to secondary educated (Table 3) and more than twice as high compared to those with only lower-secondary attainment (Eurostat (2009)).

As Table 3 shows, the increment in income from tertiary education is highest in Ireland, Germany and Poland, but for the latter the median annual gross income for tertiary educated is still only half of the EU-27 average. The low increment in Sweden is on top of a median annual gross income for tertiary educated which is below the EU-27 average (90%). [8] Among the EU-27, Germany has the highest median annual gross income for tertiary educated.

Table 3: Annual gross income: tertiary educated relative to secondary educated (2006)

IE	PL	DE	EU-27	NL	UK	FI	ES	FR	BE	DK	SE
1.82	1.73	1.63	1.63	1.59	1.53	1.48	1.43	1.34	1.28	1.24	1.19

Source: Own calculations on basis of Eurostat (2009); IT, PT, EL, RO not available; Median income in PPS Euro

The high increment in employment rate and salary increments for tertiary education in the EU signals the high private incentives for EU individuals to start tertiary education. The investment to obtain a tertiary level degree can produce private annual internal rates of returns as high as 22.6%, with all countries showing a rate of return above 8%. (see Van der Ploeg & Veugelers (2008)). This should make it easier for

[8] For secondary educated, Sweden's median annual gross income relative to the EU-27 is 1.24

policy makers to ride on these private incentives when increasing entry and throughput in higher education, particularly for large countries like Poland and Germany where graduation rates are currently below potential (cf supra).

Unfortunately, there is no evidence available for EU countries on the rates of return by social stratus. Krueger and Lindahl (2001) surveying the literature on rates of return from education, provide some evidence on this. This is mostly for the US and for education in general.

- The return to one additional year of education is estimated to be at least 8% (p1106);
- [This return] *is higher for individuals from disadvantaged families than for those from advantaged families* (p1107);
- [Some targeted programmes] *have particularly large, long-term effects for disadvantaged children in terms of reducing crime and welfare dependence* (p1107);
- [S]*tudents from more disadvantaged families benefit more from attending elite* [universities] *than do students from advantages families* (p1107).

Although the evidence is old and from the US, it nevertheless suggests that there are important private levers that can be mobilized to target wider access.

4.6. Higher Education Funding Problems in Europe

The EU devotes a much lower share of its wealth to the financing of tertiary education than the US. Although public funding of tertiary education is also higher in the US than in the EU, the most striking difference between the two regions concerns private expenditure. In relative terms, private expenditure on higher education is eight times higher in the US than in the EU (Veugelers & Van der Ploeg (2008)). Within the EU, the Scandinavian countries have the highest share of tertiary spending in GDP, of which most is public.

In the EU most of the financing of higher education is public funding, where the State is seen as the provider of education services as public goods with low tuition fees and low private funding through foundations and donations. In addition, the nature of public funding for education varies considerably across countries and time. Governments rely more and more on (lump-sum) 'block grants' with both output and input criteria (see van der Ploeg & Veugelers (2008) and CHEPS (2008) for more on funding reforms in Higher Education in Europe).

4.7. The heterogeneity in State Support for students in Higher Education in Europe

The share of public spending that goes directly to students in the form of grants and loans are an important component of the cost-benefit analysis of individuals when making their choice for pursuing higher education. From a social inclusion perspective, it is also important to know how much of the public support for students is targeted to lower income groups, as financial barriers are particularly important for the latter category. Unfortunately, comparable statistics across EU countries are hard to come by. Eurostat (2009) provides some evidence on this for a number of EU countries.

In 2006 about 20% of total public expenditures on tertiary education in the EU27, went to financial aid to tertiary students (14% to scholarships, 7% to loans). Countries with the highest share of financial aid to students are Denmark (31%), Netherlands (28%), Sweden (27%) and the UK (26%). In Denmark, grants are the important form of financial aid. Loans are more important than grants in the UK, Sweden and the Netherlands.
Seen from the students' perspective, the state provides a substantial part of their income in countries like France, Finland, the Netherlands and especially Sweden (Table 5). But Sweden, Finland and the Netherlands differentiate relatively little according to the social stratus. Differentiation is much more important in France, Germany, Austria, Spain and particularly Ireland, but these countries have less generous state support schemes.

Table 5: State support for tertiary students in the EU

SE	NL	FI	FR	DE	AT	IE	ES
State income as a percentage of total student income, 2006							
63%	44%	40%	31%	14%	11%	11%	8%
Deviation from state support for average student for students with LOW educational level of father							
6%	10%	1%	40%	57%	56%	93%	28%
Deviation from state support for average student for students with HIGH educational level of father							
0%	-5%	-2%	-19%	-24%	-37%	-44%	-36%

Source: Eurostat (2009); No EU average available as only statistics for a limited number of EU countries are available

Stimulating student mobility is one of the explicit objectives of Bologna and the European Higher Education Area. Although on the rise, the percentage of students enrolled abroad in Europe is quite low. Eurostat (2008) reports that only 2.3 % of students with citizenship in the European Union is studying in another European country. Furthermore, studying abroad still depends on socioeconomic background. In most countries, students from highly educated family backgrounds are more likely to have experienced a study-related stay abroad; this share was sometimes more than three times higher than for students from families with a low educational background. As reported by students, financial constraints are the most important obstacles in planning a study-related stay abroad (Eurostat (2008)). Along with the linguistic barrier, this reason was most often given by students from families with a low educational background.

4.8. Governance Problems in supplying higher education services in Europe

Policy-makers have been pushing universities to play a greater role as social actors, and to create 'social value added' by extending their role in society. But this higher accountability is often still confronted with a lack of real autonomy. Ex ante control by the state hinders universities' capacity to react swiftly to changes in their environment. Many parameters are often fixed for the university: subsidies per student or tuition fees cannot be varied, the number of places for each course is often

fixed. Applicants cannot be refused once they have passed their national exams. Inflexible admission and recognition rules impede mobility.

While a number of EU countries have started off reforming their higher education sector (like Denmark, Ireland, the Netherlands and the UK), the governance of universities remains very centralized, state controlled in France, Greece and Italy, or at the level of regions (in Germany, Spain, Belgium) (see CHEPS (2008) for more on reforms in the governance structure of Higher Education in Europe).

4.9. Summing up the evidence

A closer look at the evidence shows a nuanced picture on Europe's performance on access to higher education:

- The proportion of the population in the EU that has graduated from higher education is relatively low. Relatively few young people in the EU enrol in higher education but enrolment is growing.
- Graduation rates in the EU are below the OECD average but improving.
- Tertiary education leads to lower unemployment and higher earnings, also in the EU
- Private financing of higher education is in the EU lower than in countries like the US.

Overall the statistical evidence indicates that Europe has made improvements, particularly in terms of number of graduates. At the same time, it shows the need for further improvements on access to European higher education system, particularly for the lower social stratus. It also illustrates the heterogeneity within Europe, with a number of countries, particularly the Nordic countries, performing above EU average, particularly compared to the Mediterranean countries.

5. THE POLICY AGENDA FOR IMPROVING ACCESS TO HIGHER EDUCATION

Having reviewed the challenges facing Higher Education in Europe in terms of improving access and throughput in Higher Education, it is clear that the policy agenda needs to be a "systemic" policy agenda.

It requires stimulating "demand for Higher Education", improving the private incentives for people to pursue Higher Education. This requires stimulating the development of a vibrant innovative economy and a social agenda where private and public employees and entrepreneurs are able to create high-skilled jobs and pay a consequent wage premium for high skills. As financial issues are high on the list of perceived barriers to participation for individuals, particularly from the lower social strata (see Davies et al (2002), alleviating this financial barrier is an important avenue for public policy, especially as financial markets are faced with important imperfections to finance educational choices (cf supra). The experience with social credits in the form of an income-contingent loan system of the type used in Australia suggests that this need not jeopardise accessibility of higher education (Barr and Crawford, 2005; Jacobs and van der Ploeg, 2006).

At the same time, the policy agenda needs to develop the "supply side" of higher education. In the skill-set required, tertiary education needs special focus, but it has to fit into a well performing primary and secondary education system. This holds as the evidence has shown the importance of the quality of pre-training for success in tertiary education. In addition, incentives are needed for life long learning and on-the-job training. For Tertiary Skills development specifically, attention should be focused not only on improving entry, but also successful graduation and this particularly for the lower social strata. The "supply side" policy agenda for improving Access to Higher Education will also require reforming HE institutes to give them more flexibility, autonomy and budget and establishing more EU wide competition among HE institutes so they can respond adequately to the need for more tertiary skills from a wider constituency.

With the systemic characteristics of a policy agenda for improving access to Higher Education being set as a best practice frontier, the next sections will give a brief review of the directions which policy in Europe has taken in the recent past to improve access to higher education (section 5.1) and which it is currently proposing in the framework of Europe 2020 (section 5.2).

5.1. Past Policy actions to improve access to Higher Education in Europe

It is widely recognized in policy documents (eg OECD, UNESCO, ILO, European Commission…) that there are strong economic and societal reasons for increasing access and for widening the constituency that higher education serves by including these groups who have traditionally been excluded. The drive towards equity and social cohesion is certainly a clear political goal at European level (cf supra).

Which policy actions have been developed to address this challenge so far?

- Reforms of the supply side of the Higher Education sectors: The Bologna reforms allow a more modular design of higher education, which is an important condition for smoothing access
- Reshaping the Higher Education landscape: this includes reforming universities giving them more autonomy and flexibility with accountability including social responsibility (see van der Ploeg & Veugelers (2008), CEPS (2008) for more on changes in university governance);
- Reshaping the incentives of Higher Education institutes to improve and widen access. This includes grants to institutions to develop special initiatives, core funding linked to achieving targets of students (of particular groups) (Examples: Ireland, Flanders)…;
- Reforming other institutes and introducing new institutes for higher education, including polytechnics, open universities, distant learning…which can broaden access to Higher Education (Osborne (2003)).
- Others: Raising awareness, experiments with parent education, improving early years of schooling… (Osborne (2003))

5.2. Current Policy Proposals to improve access to Higher Education in Europe

In the Council conclusions of 11 May 2010 on the social dimension of education and training, the Council invited the Member States to

(a) promote widened access by strengthening financial support schemes, such as student loans and means-tested grants

(b) improve completion rates, by strengthening individualized support, monitoring and mentoring

(c) provide adequate incentives for the mobility of students, particularly from disadvantages backgrounds

(d) Promote specific programs for non-traditional entrants

As most of the policy competency resides at the level of Member States, the commission's own role in the policy agenda is mostly confined through actively using the open method of coordination to diffuse best practices and provide a forum from learning from best practices among Member States. But also the use of European Social Funds and other EU funds such as the Structural Funds to improve the access to Higher Education is advocated. And finally, attention is called for to support greater participation of students from disadvantaged backgrounds into its own transnational mobility schemes.

Overall, there is increasing policy attention towards addressing access to higher education, with a variety of instruments being considered. Nevertheless, these instruments are often still deployed in isolation, not optimally combined in a truly systemic policy perspective, exploiting any possible complementarities between policy instruments. Policy interventions also could improve on their leveraging of private incentives, thereby increasing the effectiveness of public funds.

6. INDICATORS FOR MEASURING ACCESS TO AND AFFORDABILITY OF HIGHER EDUCATION

With still relatively little know-how on what levers policy makers can use to increase and widen access and throughput of higher education to societal welfare, it is hard to evaluate whether the current policy proposals on the *Europe 2020* table will be effective.

More and better indicators are needed to monitor (lack of) progress. The selection of the headline indicator "share of the population aged 30–34 having completed tertiary education" is a step forward, as part of a more evidence-based policy approach.

Its main advantage is that it will help waking-up policy makers, avoiding complacency, and draw attention on effects rather than processes. But as this is only one indicator and a highly aggregate one, hiding many details, it should be seen rather as rising awareness in a first step, stimulating next steps of further data and analysis work. Particularly the 40% target should not turn into a fetish, an absolute numerical target to be achieved by Member States by a target year. Yardsticks should not be set by what other countries are doing, but how well, or not so well, a country is doing in improving an indicator relative to its own starting position (EENEE (2010)). Headline indicators and their yardstick should serve to better guide further, broader and more indepth analysis and data-collection.

Further indicators should become available across time and countries on pivotal dimensions like

- Access to higher education
- Access by less privileged groups (gender, socio-economic background, nationality/citizenship…
- Successfulness of higher education training (graduation and post-graduation activities…
- Successfulness by less privileged groups (gender, socio-economic background, nationality/citizenship…
- Affordability of higher education training.

Despite the rising importance of accessibility and affordability of higher education as a field of policy intervention, it is surprising to see the lack of good empirical proxies to measure these dimensions consistently over time and countries.

The Educational Policy Institute (www.educationalpolicy.org) has recently started to develop a more systematic and rigorous exploration of the accessibility and affordability of higher education within an internationally comparative context (15 countries including US, Australasia and a number of European countries) (see Appendix for a presentation and discussion of the latest exercise GHER (2005)).

The rankings of countries differ substantially depending on which indicators are chosen for affordability and accessibility. Nevertheless, the data and rankings indicate that the difference between European countries and their North American and Australasian counterparts, are less than is sometimes imagined.

Overall, Finland and the Netherlands seem to be the success stories of this ranking exercise in terms of both affordability and accessibility. Both have large student bodies, high attainment rates, extensive grant programs and student bodies that are reasonably reflective of broader society.

Interestingly for policy making, the data also suggest that while there is some clustering, the links between accessibility and affordability are not straightforward. Sweden for instance, which has virtually eliminated financial barriers to education, does not do especially well on measures of accessibility. On the other hand, the UK, which fares poorly on most affordability measures, does reasonably well in terms of accessibility. At this stage, one can only speculate about the causes for this weak link between accessibility and affordability. Perhaps affordability is not targeted enough to the categories most sensitive to financial constraints. It also suggests that accessibility is determined by more than pure affordability. Others factors such as job prospects, pre-training quality and socio-economic background are important co-determining factors for accessibility.

Also interesting to note from the ranking exercise is that there seems at first sight no evidence of a negative trade-off between excellence and access & affordability, on the contrary. Once corrected for the size of the country, Sweden, UK and Finland are also the better performing countries in the EU in terms of excellence, scoring better or on par with the US in terms of presence of their universities in the Top 100 Shanghai Ranking, with the Netherlands not far behind.

7. A (NEW) POLICY AGENDA FOR IMPROVING ACCESS TO HIGHER EDUCATION

While there is undoubtedly more policy attention currently and interventions are considerably more pro-active now than in the earlier periods of higher education expansion, when policy was directed to supply more of the same type, there still remains an important lack of knowledge on the effectiveness of policy interventions to improve access to Higher Education. Will the current and proposed policy actions succeed in improving access and from the right targets?

The insights from this report for policy making can be summarized as follows:

- Government policy to improve access should fit into a broader systemic policy agenda addressing simultaneously demand and supply for higher education services.
- Attention should be focused not only on improving entry, but also successful graduation and career development
- Access to higher education has to fit into a well performing primary and secondary education system. In addition, incentives are needed for life long learning and on-the-job training
- Financial instruments to alleviate financial constraints and address financial market failures are important to tackle affordability of higher education.

  Beyond the case for public spending, the empirical evidence suggests that ***private returns*** to higher education are substantial, also in continental Europe. All this evidence suggests more scope for leveraging ***private funding*** of higher education and in particular for asking students to pay higher tuition fees, particularly for those degrees where private returns are substantial..

  Public spending should be targeted to financially constrained constituencies and should address a multitude of financial instruments, moving beyond the (free) tuition fee discussion to include grants to financially constrained groups and income-contingent loans.
- Providing incentives to Higher Education institutes to deliver supporting services to socio-economic constrained constituencies. These could range from target setting for diversity including not only entry but also their graduation, to providing funds for specific programs.
- Targeted awareness programs to socio-economically constrained constituencies to reduce the information costs inducing better choices.

But perhaps the most important policy implication is the need for better indicators and analysis, as we still know very little on what works effectively.

Much more work still needs to be done in terms of finetuning the measurements and and filling data gaps. Still even with the limited data available, this contribution hopes to spur discussion on these important dimensions that would lead to better analysis, insights, indicators, policies and performance in the future.

References

Acemoglu, Daron, Philippe Aghion and Fabrizio Zilibotti (2006). "Distance to Frontier, Selection and Economic Growth", *Journal of the European Economic Association*, 4(1), pp. 37-74

Aghion, P. (2006). A primer on innovation and growth, Bruegel Policy Brief, 6, 1-8.

Aghion, P., M. Dewatripont, C. Hoxby, A. Mas-Colell and A. Sapir (2007). Why reform Europe's Universities, Bruegel Policy Brief, Brussels.

Aghion, Philippe, Mathias Dewatripont, Caroline Hoxby, Andreu Mas-Colell, and André Sapir (2008). *Higher aspirations: an agenda for reforming European universities.* Brussels: Bruegel Blueprint 5

Barr, N. and I. Crawford (2005). Financing Higher Education, Routledge, London.

Barro, Robert and Xavier Sala-i-Martin (1995). *Economic Growth.* New York: McGraw-Hill

Becker, Gary (1964). *Human Capital*. New York: Columbia University Press

Becker, G. and Tomes , N. (1976), Child endowments and the quality and quantity of children", The Journal of Political Economy, 84, 4. 8143-8164.

Benhabib, Jess and Mark Spiegel (1994). "The role of human capital in economic development: evidence from aggregate cross-country data". *Journal of Monetary Economics*, 34:2, pp143-74

Boarini, R., J.O. Martins, H. Strauss, C. de la Maisonneuve and G. Nicoletti (2008). Investment in tertiary education: Main determinants and implications for policy, CESifo Economic Studies, 52, 3.

Cameron, S. and J. Heckman (2001), The dynamics of education attainment for black, Hispanic and white males, The Journal of Political Economy, 108, 3, 455-499.

Cohen, Daniel and Marcelo Soto (2007). "Growth and human capital: good data, good results", *Journal of Economic Growth*, Volume 12, Number 1, 1381-4338

CHEPS, 2008, Progress in Higher Education reform across Europe: Governance and Funding Reforms, Report prepared for EC-DG EAC.

Davies, P. et al (2002), For me not for me: mature students participation in Higher Education, DfES Research Report 297.

Dehon, C. and E. Ortiz (2008), What are the factors of Success at University: a case study for Belgium, ULB-ECARES Working Paper 20098-003.

Educational Policy Institute, (2005), Global Higher Education Rankings, Affordability and Accessibility in Comparative Perspective.

EENEE (2010), Equity in and through education and training: Indicators and priorities, Analytical Report for the EC.

EUROSTAT (2009), The Bologna Process in Higher Education in Europe: Key Indicators on the Social Dimension and Mobility.

Haveman R. and B. Wolfe (1995), The determinants of chilren's attaints: a review of methods and findings, Journal of Economic Literature, 33, 4, 1892-1878.

Jacobs, B. and F. van der Ploeg (2006). Guide to reform of higher education: A European perspective, Economic Policy, 47, 535-592.

Johnson, D.R. and F.T. Rahman (2005). The role of economic factors, including the level of tuition, in individual university participation decisions in Canada, The Canadian Journal of Higher Education, XXXV, 3, 101-127.

Krueger, Alan and Mikael Lindahl (2001). "Education for Growth: Why and For Whom?", *Journal of Economic Literature*, 39, Dec., pp1101-1136

Manski C. et al (1992), Alternative estimates of the effect of family during adolescence on high school graduation, Journal of the American Statistical Assocation, 87, 417n 25-37.

OECD (2009). *Education at a glance 2009. OECD Indicators*. Paris: OECD

Osborne, M. (2003), Increasing or widening participation in Higher Education: a European overview, European Journal of Education, 36, 1, 1-24.

Ploeg, F. van der and R. Veugelers (2008). Towards evidence-based reform of European universities, CESifo Economic Studies, 52, 3, 2-22.

Vandenbussche, Jérôme, Philippe Aghion and Costas Meghir (2006). "Growth, distance to frontier and composition of human capital", *Journal of Economic Growth*, Vol. 11, No 2

Veugelers, R. and F. Van der Ploeg, R., 2008, Reforming European Universities: Scope for an evidence-based process? In Dewatripont, M, F. Thys-Clément & L. Wilkin (Eds.), *Higher Education in a Globalised World: governance, competition and performance*, Editions de l'Univeristé de Bruxelles, Brussels.

Appendix: The Education Policy Institute International Ranking Exercise on Accessibility and Affordability of Higher Education (GHER (2005))

The Educational Policy Institute (www.educationalpolicy.org) has started to develop a more systematic and rigorous exploration of the accessibility and affordability of higher education within an internationally comparative context (15 countries including US, Australasia and a number of European countries)

On **affordability**, their ranking combination information on

- Education costs (including tuition fees, books …
- Living costs (room and boarding during the academic year…)
- Grants
- Loans
- Tax expenditures

As the following table shows, the rankings of countries differ substantially depending on which indicator is chosen. Nevertheless, the data and rankings indicate that while European countries are generally more affordable than their North American and Australasian counterparts, the gap is less than is sometimes imagined. Despite the very high tuition fess the US is actually not far behind Europe thanks to higher student aid and higher national incomes. Sweden is the most affordable country because of its combination of low educational costs, generous grants and high take-up of loans. The Netherlands and Finland also do well. The UK is near the bottom because of high costs and low national incomes.

Table A.1: Overall Affordability Rankings

	Education Costs	Total Costs	Net Costs	Net Costs After Tax Expenditures	Out-of-pocket Costs	Out of Pocket Costs After Tax Expenditures	Overall Ranking (out of 16)
Sweden	4	7	3	3	1	1	1
Finland	1	4	2	2	3	3	2
Netherlands	8	5	1	1	2	2	3
Belgium (fl)	2 (tie)	1	5	5	5	4	4
Ireland	5	2	4	4	4	6	5
Belgium (fr)	2 (tie)	3	6	8	6	8	6
Austria	6	9	8	6	11	7	7
Germany	9	6	9	7	9 (tie)	5	8
France	7	10	7	9	8	11	9
Italy	10	8	10	11	13	13	10
Canada	13	11	11	10	9 (tie)	10	11
Australia	12	12	12	13	12	12	12
United States	15	13	13	12	7	9	13
United Kingdom	11	14	14	14	14	14	14
New Zealand	14	16	15	15	15	15	15
Japan	16	15	16	16	16	16	16

Source: GHER 2005.

On **accessibility**, the data are more difficult to find. Nevertheless, the GHER includes information on

- Extent of participation ("how many people get in?"): this includes the participation rate as well as educational attainment
- Breadth of participation ("who gets in"): this includes an indicator on gender parity (GPI) and an index on socio-demographic background (EEI), in casu parental education (in casu father's education).

Table A.2: Overall Accessibility Rankings

	Participation	Attainment	EEI	GPI	Overall Rank (out of 13)
Netherlands	3	3 (tie)	1	1 (tie)	1
Finland	1	8	5	5 (tie)	2
United Kingdom	5	5 (tie)	2	5 (tie)	3
United States	7 (tie)	1	7	12	4
Canada	7 (tie)	2	3 (tie)	10 (tie)	5
Australia	6	3 (tie)	6	7	6
Ireland	12	5 (tie)	3 (tie)	9	7
France	4	9	8 (tie)	8	8
Sweden	9 (tie)	7	8 (tie)	13	9
Italy	2	12	10	10 (tie)	10
Germany	13	11	11	1 (tie)	11
Belgium	9 (tie)	10	13	3	12
Austria	9 (tie)	13	12	4	13

Source: GHER 2005.

On accessibility, the top performing countries are the Netherlands and Finland, scoring high on participation rates as well as breadth of participation. The US and other Commonwealth countries cluster in the middle, with Germany, Belgium and Austria faring well in terms of gender, but not on other accessibility criteria.

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