

CEPS TASK FORCE

THE QUANTITY AND QUALITY OF HUMAN CAPITAL: COMPARING THE EU, US AND CHINA

Chairman: **Jan-Eric Sundgren**, Executive Vice President Public & Environmental Affairs, Volvo and Former President of Chalmers University of Technology in Gothenburg

Rapporteur: **Felix Roth**, Research Fellow & Postdoctoral Lecturer & Editor of *Intereconomics*, CEPS

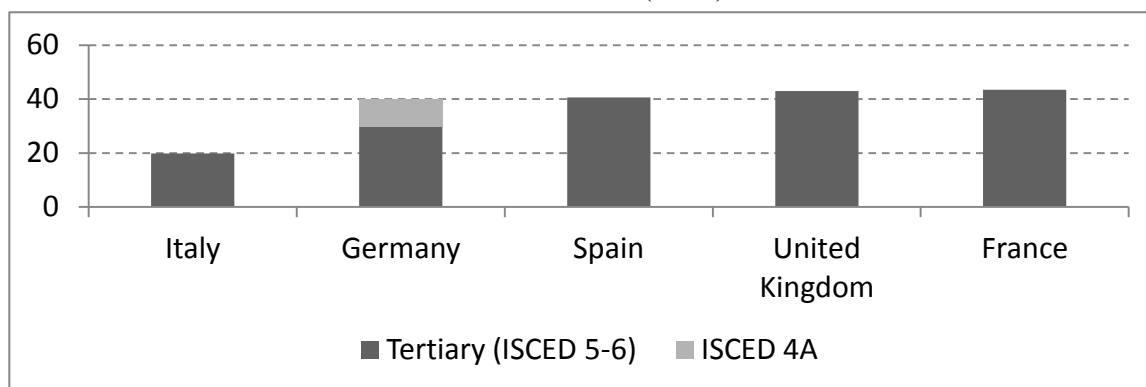
The overall level of education and more precisely the skills, abilities and creativity of European citizens constitute a key determinant for European competitiveness. On this point the official EU institutions and economists agree.

This is one of the reasons why the Europe 2020 strategy has put the tertiary graduation rate as one of its five headline targets. However, whereas the Europe 2020 goal of a tertiary graduation rate of 40% (among the 25-34) year old ones has prominently covered the quantitative side of investments of human capital, it has failed to cover the importance of the quality side of human capital.

The quality of the tertiary educational system is difficult to measure but there now exist international comparable datasets on the assessment of the quality of universities. Among the most prominent university rankings are the Academic Ranking of World Universities (ARWU) released by the Shanghai Ranking Consultancy and the Times Higher Education Ranking which has been released since 2010 in co-operation with Thomson Reuters¹.

Figure 1.

Percentage of tertiary educational attainment by those aged 30-34 in large European Economies (2010)



Sources: Own calculations based on Eurostat data, Europe 2020 indicators.

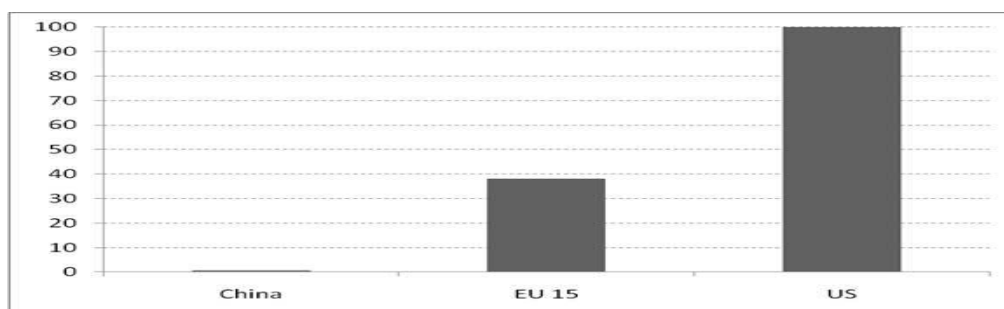
Notes: For the German case the vocational training system (ISCED 4A) has been added to the tertiary educational attainment as the German government stressed that the high quality of their vocational training system should be considered equal to the qualifications attained by tertiary graduates. Although this reasoning is not unsubstantiated this procedure is problematic concerning the international comparability of the data. This issue of correctly placing the German vocational training system within the UNESCO's ISCED classification is one task to be resolved in the upcoming future. Until now, in their International Standard Classification of Education (ISCED) the UNESCO differentiates seven educational attainments. Tertiary attainment (ISCED 5-6) covers educational attainment from universities and includes BA, MA and PhD degrees. Tertiary education is normally differentiated to upper-secondary and below upper-secondary education.

¹ For a detailed overview of the strength and weaknesses of the two rankings and other potential rankings see Rauhvargers (2011). *Global university rankings and their impact*, European University Association. The European Multidimensional University Ranking System (U-Multirank) has just reported first results on a new university ranking tool. Their methodology however has not yet been implanted a full sample of universities.

When it comes to the quantity of tertiary education most of the large EU economies perform quite well. Although Italy's tertiary graduation rate, of below 20%, is amazingly low and clearly reflects a massive lack of competitiveness, the other large economies France, UK, Spain and Germany (if one accounts for Germany's specialized vocational training scheme) are performing quite decently as they have already reached the Europe 2020 goal in 2010. With the Europe 2020 quantitative criteria already being met the question appears to be now, how the EU compares to the rest of the world, here in particular China and the US in its quantity and more importantly quality of human capital.

Figure 2.

Composite index of tertiary educational attainment by those aged 30-34 and population weighted university rankings, Comparison of US, EU15 and China in 2010



Sources: The Times Higher Education (THE) World University Rankings 2010–2011, Times Higher Education, London; Barro & Lee (2010).

Notes: Based upon a composite index of tertiary educational attainment by those aged 30-34 and population (total amount of tertiary graduate students) weighted university rankings. The scale is standardized to US = 100, thus levels of EU-15 and China depict relative shares to US in 2010. A similar figure containing a broader set of countries was published in Gros and Roth (2012)² which has been commissioned by the Austrian Bundeskanzleramt in 2011.

Figure 2 shows a composite indicator between the percentage of the population (aged 30-34) with completed tertiary education in 2010 and data from the university ranking from the times higher education ranking from 2010 for the EU-15, the US and China. The figure clarifies that once accounting for the quality of the university system the US has a clear visible competitive advantage over the EU-15 and China. The reason for this significant discrepancy between the US and the EU-15 is due to the excellence of the US universities compared to EU universities³ and an overall higher share of tertiary graduates. 15 US

² Gros and Roth (2012). The Europe 2020 Strategy-Can it maintain the EU's competitiveness in the world?, CEPS: Brussels.

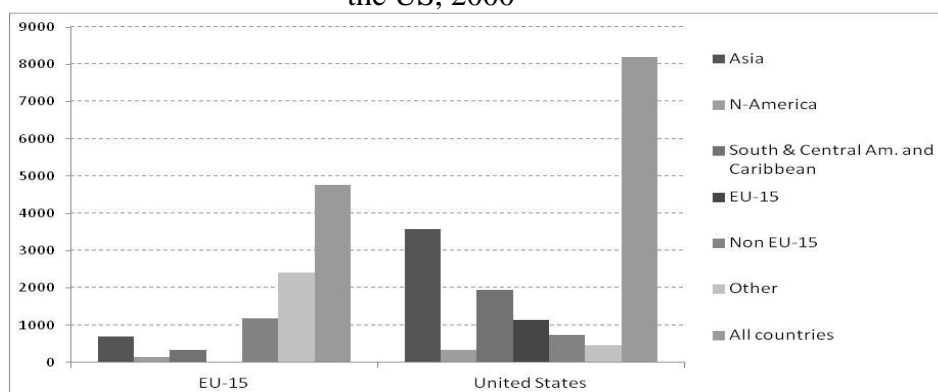
³ Some researchers claim that the Times Higher Education ranking is biased towards English speaking nations. See here Rauhvargers (2011). *Global university rankings and their impact*, European University Association for

universities rank among the top 20 universities. There are only four top European universities (three from the UK and one from Switzerland). Although European universities have slightly more universities (75) than the US (72) among the top 200, due to the fact that European policy makers have been unable to successfully implement a European Research Area (ERA), there seems to be lack of competition among European universities. This lack of competition hampers the necessary process of specialization among European universities to unleash the potential efficiency and economy of scale within ERA.

In addition, as can be inferred from figure 3, the US continues to successfully attract significant higher numbers of the brightest and most talented citizens among the non-OECD countries from Asia offering the US a pool of talents of nearly half of the world's total population considering solely China and India.

Figure 3

Stock of highly educated migrants by country of birth (in thousands) in the EU-15 and the US, 2000



Note: Authors own estimations based on OECD data. To increase the comparability OECD took data from 2000 censuses. Numbers are in 1000. Immigrants have an educational level of ISCED 5-6. There are no data for Austria and Finland for N(orth)-America and South/Central America. Finland lacks data for Asia. Portugal lacks data for Asia and N(orth)-America.

The task force will analyze the above mentioned aspects in more detail and will try to further explore the EU's quantity and quality of human capital in comparison to the US and China. The following four sets of questions should be considered as being of primary importance to answer.

the overall weaknesses of the THE university ranking. The final report of the European Multidimensional University Ranking System (U-Multirank) states that many existing rankings are "flawed" (Van Gucht and Ziegele (2011). *Design and Testing the Feasibility of a Multidimensional Global University Ranking*, http://ec.europa.eu/education/higher-education/doc/multirank_en.pdf. However as the project itself has not come up with a new international ranking it seems pragmatic to stick to those rankings which have already been finalized for an international comparability.

1. How has the quantity of tertiary graduation rate (among those aged 30-34) of educational performance been evolving during the last decade, how is it performing recently and how will it perform in the future within the European Union? In comparison to the EU, how has it evolved in the US and China?

When measuring the quantity of tertiary education, should one also focus on some indicators from the realm of upper-secondary education, for instance the “Dual System” in Germany and Austria which combines school and company based training?

2. When exploring the quality of European universities why are EU universities performing poorly in contrast to US universities? In which dimensions do they lack competitiveness in comparison to the US (and China)? Are the existing university rankings adequate to rank international universities or are they flawed?
3. What are the real obstacles to establishing a functioning ERA? With ERA being unable to unleash its real potential in efficiency and economy of scale, will the European university system ever be able to close the quality gap to US universities?
4. In contrast to the US, why is the EU less able to attract the smartest and talented researchers from non-OECD countries, here in particular Asia? Could this be linked the lack of quality of the EU’s university system?

The CEPS Task Force: organisation and governance in detail

Meetings:

- Five task force meetings will be arranged from April 2013 onwards.

Key staff

The task force will be chaired by **Jan-Eric Sundgren**, Executive Vice President Public & Environmental Affairs, Volvo and Former President of Chalmers University of Technology in Gothenburg

Organisation and communication with members will be under the supervision of **Kerstin Born-Sirkel**, Director of Corporate and External Relations, CEPS

The lead rapporteur of the Task Force will be **Felix Roth**, Research Fellow & Postdoctoral Lecturer & Editor of *Intereconomics*, CEPS

Why a CEPS Task Force and how does it work?

The CEPS Task Force will constitute a unique forum of representatives from the European Commission, Members of the European Parliament, officials from member states, business and industry, NGOs and other stakeholders to discuss highly topical issues in a multi-stakeholder setting. The objective of a task force is i) to create a process where issues can be analysed in an open structured discussion and ii) to publish an authoritative analysis leading to policy recommendations. CEPS will produce minutes after each meeting. At the end of the Task Force, CEPS will publish a Task Force report, which will be disseminated to national and European policy makers. The Task Force report will be based on the discussions within the meetings and the research carried out by the rapporteur.

Potential members of the Task Force are MEPs, Representatives from the European Commission, member states, other EU institutions, NGOs, academia and key stakeholders from business and industry.

CEPS has a track record of having run over 50 task forces.

See: <http://www.ceps.eu/category/book-series/ceps-task-force-reports>

Indicative schedule of meetings and topics:

LAUNCH:

**Evolvement of the Quantity of Tertiary Graduation: Comparing the EU, US and China
Tuesday, 16th of April 2013**

MEETING 2:

**Evolvement of the Quality of Tertiary Education: Comparing the EU, US and China
Wednesday, 18th of September 2013**

MEETING 3:

**Obstacles to the functioning of the European Research Area
Date to be announced**

MEETING 4:

**Brain-Draining Asia – Why is the EU lacking behind the US?
Date to be announced**

MEETING 5:

**Draft Report Presentation and Discussion
Date to be announced**



Launch of the Task Force

THE QUANTITY AND QUALITY OF HUMAN CAPITAL: COMPARING THE EU, US AND CHINA

Evolvement of the Quantity of Tertiary Graduation – Comparing the EU, US and China

**Tuesday, 16th of April 2013
CEPS**

10:00 Registration and coffee

10:30 Objective and Process of the CEPS Task Force
Staffan Jerneck, Senior Advisor, CEPS

10:40 Welcome Remarks and Comments by the Chairman
Jan-Eric Sundgren, Executive Vice President Public & Environmental Affairs,
Volvo and Former President of Chalmers University of Technology in Gothenburg

10:55 The Quantity and Quality of Human Capital: Comparing the EU, US and China
Felix Roth, Research Fellow, CEPS

11:10 Global competition for talent–A Tsunami in higher education
Xavier Prats Monné, Deputy Director-General, DG Education and Culture

12:05 The role of education for innovation
Dominique Ristori, Director General, Joint Research Center

13:00 Lunch

14:00 The Business Perspective
Kim Lansford, Senior Policy Advisor, European Round Table of Industrialists

15:00 Outlook from the EIT
Elpida Keravnou-Papailiou, EIT Governing Board Member and Rector of the
Cyprus University of Technology

16:00 Future activities of the Task Force

16:30 End

2nd Meeting of the Task Force

THE QUANTITY AND QUALITY OF HUMAN CAPITAL: COMPARING THE EU, US AND CHINA

Evolution of the Quality of Tertiary Education: Comparing the EU, US and China

**Wednesday, 18th of September 2013
CEPS**

9:45 Registration and coffee

10:15 Welcome Remarks

Kerstin Born-Sirkel, Director of Corporate and External Relations, CEPS

10:20 Welcome Remarks and Comments by the Chairman

Jan-Eric Sundgren, Executive Vice President Public & Environmental Affairs,
Volvo and Former President of Chalmers University of Technology in Gothenburg

**10:30 Evolution of the Quality of Tertiary Education: Comparing the EU, US
and China**

Felix Roth, Research Fellow, CEPS

10:45 European Universities: performance, governance and funding

Helena Nazaré, President, European University Association

11:45 U-Multirank – Implementing a user-driven, multidimensional ranking

Gero Federkeil, Project Leader U-Multirank, Centre for Higher Education

12:45 Lunch

13:45 The role of Universities in innovation and economic development

Maria da Graça Carvalho, Member of Parliament & Former Minister of Education,
European Parliament and Institut Superior Técnico

14:45 Where does quality lie in secondary education in Europe ?

Patricia Wastiau, Principal Advisor for Research and Studies, European Schoolnet

15:45 Future activities of the Task Force

16:15 End

CONDITIONS FOR PARTICIPATION

The CEPS Task Force is principally designed for CEPS Corporate Members but participation is open to non-members as well, at a higher fee.

The fee covers participation in all workshops, documentation, lunches and three copies of all reports produced.

Fee Structure

Participation fee for:

CEPS Corporate Members: EUR 1,000 + VAT

Non-members: EUR 5,000 + VAT

To register, please use the Registration Form in the Appendix of this document.

About CEPS

The Centre for European Policy Studies, based in Brussels, was launched as an independent research institute in 1983 to encourage the study and discussion of public affairs in Europe. It aims:

- to provide decision-makers, inside and outside government, with authoritative and independent analysis of European affairs;
- to contribute to the public debate about European institutions and policies through sound research and judgement; and,
- to create a network of leaders and thoughtful individuals who are committed to working together to enhance the development of European integration and co-operation.

CEPS is funded by corporations, public bodies, membership fee dues and income from activities.

If you have any questions regarding the Task Force, please contact:

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REGISTRATION FORM

CEPS Task Force THE QUANTITY AND QUALITY OF HUMAN CAPITAL: COMPARING THE EU, US AND CHINA

Meeting 16th of April 2013, 10:00 to 16:30

CEPS, Place du Congrès 1, B-1000 Brussels

A participation fee for the task force including all task force meetings of €1,000 applies for CEPS Corporate Members, while €5,000 applies for non-members.

Name	
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Please tick correct box:

<input type="checkbox"/>	My company is a corporate member of CEPS and pays €1,000 (+21% VAT).
<input type="checkbox"/>	My company is not a corporate member of CEPS and pays €5,000 (+21% VAT).
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