Outline for remarks on the economics of research

Meeting with board of AERG (on line)
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Content

I.- Preface

II.- The role of knowledge in economic growth: macro view

III.- Academic vs. Corporate research

IV.- Europe

I. Preface

- Disclaimer
- A source of my personal conviction
- A reference:
- L. Zucker, M. Darby and A. Brewer:

"Intellectual Human Capital and the birth of US Biotechnological Entreprises", in

American Economic Review, 1998

II. Knowledge and Growth, 1

- Spotting the key role of knowledge: The Solow Growth model,
- A recent reference:

  B. Jones and L. Summers, 2020:

  A calculation of the Social Returns of Innovation.

  NBER W.P 27863

II. Knowledge and Growth, 2

- Is it the science or the practice?
- A Classical reference:

  J. Mokyr:

  The Intellectual origins of modern economic growth

Journal of Economic History, 65 ,2005.

II. Knowledge and Growth, 3

- The dynamics of Innovation: The Schumpeter "creative destruction" approach.
- Modern reference:
- Philippe Aghion, C. Antonin and S. Bunel,2021

  The Power of Creative Destruction,

  Belknap-Harvard publishers

II. Knowledge and Growth, 4

- "The economy of the future must be smarter and greener, but it will not be greener if it is not smarter"

  Reference:

  P. Aghion and R. Veugelers:

  No green growth without innovation

  Bruegel Policy Brief 2009

III. Academic vs. Corporate Research,1

- Academic freedom vs. hierarchical organization,
- A personal anecdote from ERC times
- Reference:

  P. Aghion, M.Dewatripont and J.Stein, 2008:

  "Academic Freedom, Private Sector Focus, and the Process of Innovation"

  Rand Journal of Economics

(see also, Chapter 10, 2 – "*The Impetus for Basic Research*" - of Aghion et. al. Creative Destruction book)

III. Academic vs. Corporate Research,2

- The modern dominance of university research.
- In the USA: key role of Bayh − Dole and the era of "open innovation"
- Second thoughts in the USA?:

A. Arora, S. Belenzon, L.Coca, L. Sheer and H. Zhang, november 2023:

The effects of public science on Corporate R&D

NBER WP: 31.899

- Remarks on the Health and Digital Industries

IV. Europe, 1

- Our weaknesses: many
- We need the a higher proportion of European research funds be channeled through globally designed European programs (inter-govern or EU. Preferably EU, but…)
- An ambitious goal for EU-27: peak excellence as good as the US, UK or Switzerland.

IV. Europe, 2

- Excellence only: NSF and the ERC.
- A caveat: Excellence will need to be more dispersed than in the USA.
- An american view of the regional issue in the USA:
- J. Gruber and S. Johnson, 2019

  Jump-Starting America

  Publisher: Public Affairs, NY.

IV. Europe, 3

- A financing goal: doubling the budget of the Horizon program (and inter govern agreements): from 1-thousand of EU-27 GNP to 2-thousand.
- If the official EU goal of devoting 3% of EU GNP to R&D (1/3 public, 2/3 private) is to be reached the above implies that roughly half the global increase in public funding has to be channeled though the European channel.
- Difficulties: many competitors.

IV. Europe, 4

- Money is not enough.
- Build in the spirit of the Excellence pillar of the Horizon program:

  - Talent

  - Infra-structures (finance them with debt, relevant for regional policy)

  - Add: institutional reinforcement.

IV. Europe, 5

- *En attendant* Draghi's report.
- Need of lobbying
- The role of European corporations.
- Note: the first (Novo Nordisk, biomedicine) and the third (ASLM, chips) most valued − in the stock market − European corporations are research intensive. (the second is Louis Vuitton, luxury).

THANKS!