

# Council of Europe Conference

PUBLIC RESPONSIBILITY FOR  
HIGHER EDUCATION AND  
RESEARCH – Review of the  
Economic Literature

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# Overview

- ◆ Higher education and economics
- ◆ Public good and externalities (market failure)
- ◆ Economic impact of higher education
- ◆ Access and equity
- ◆ Financing higher education
- ◆ Research

# Economics of education and research

- ◆ Education: increase in the stocks of skills, knowledge and understanding possessed by individuals or society
- ◆ Research: activity aimed at making discoveries or inventions and producing knowledge
- ◆ Economics: analysis of the choices in allocating resources to needs; i.e. affecting the stocks of skills and knowledge made by individuals or institutions

# University and Research .....

## ◆ Three core functions of Universities:

- Learning and teaching
  - ◆ increase of human capital (investment)
  - ◆ entertainment services (consumption)
- Scientific research
  - ◆ knowledge production (theoretical/empirical)
  - ◆ information storage
- Provision of services to third parties

# ...and their impacts (missions)

- ◆ e.g. World Declaration on Higher Education (UNESCO)
  - qualified and responsible citizens to meet the needs of all sectors of human activities;
  - optimal range of choice and flexibility for the *individual* development;
  - provision of relevant expertise to *society* in cultural, social, economic development;
  - help protect and enhance *societal values* that form the basic democratic citizenship.

# Is Education a Public Good ?

◆ Market failure as a normative criteria for efficiency:

- Public Good

- ◆ Is higher education non rival?
- ◆ Can one be excluded from higher education?
  - Pure profit maximisation tend to restrict access
    - lower enrolment
    - equity aspects (selection)

- Externalities

- ◆ Effects of economic activity uncompensated by markets

# Market and Government failures ?

- ◆ Theory of market failures based on extreme assumption of frictionless markets
  - call for unlimited government interventions
  - role of transaction cost: resources necessary to transfer, establish and maintain property rights
- ◆ Government failure
  - bureaucratic decision (top-down)
  - transaction costs of non market decision

# Economic impact of higher education I

- ◆ Private economic benefits for the educated, as education prepares for labour market (income)
  - education as an investment (theory of human capital)
  - high returns relative to other investment
  - private vs social returns
    - ◆ what are the costs ?
    - ◆ what are the benefits ?



# Economic impact of higher education II

- ◆ Social economic benefits (externalities)
  - spill over to other individuals, firms, region, etc. (overall increase of productivity)
  - contribution to economic growth (GDP)
- +
- indirect (positive) effects on public health, crime, political participation and social cohesion

# Economic and non-economic effects

- ◆ Human well-being includes:
  - material measured output GDP
  - economic well-being
    - ◆ social 'regrettables' (pollution, crime, etc.)
    - ◆ inclusion of non market activities
  - general welfare (non economic)
    - ◆ social cohesion (shared values and commitment to a community)
    - ◆ happiness, social relations, etc.
- ◆ Equity and distribution

# Alternative or complementary interpretations

- ◆ Signalling: (higher) education does not increase *per se* the productivity of the workers but identifies those individuals who are most productive due to motivations and innate abilities
- ◆ Earnings are not a good indicator of (marginal) productivity, present or in the future

# Access and equity

## ◆ Equity may be defined in terms of outcomes:

- equal amounts of education (input)
- equal standard (output)\*
- Education to reach full endowed potential\*\*

\* higher education requires individual capacities which are not equally distributed

\*\* differences persist

## ◆ Equal access

- impact of 'cultural capital', 'parental status'

# Public or private provision

- ◆ Public provision (if government some responsibilities are established)
  - public sector production (vs purchase from the markets)
  - private non or for profit production with government financing
  - private for profit production (competition, benchmarking)

# Modes of financing higher education I

- ◆ With regards to public good characters
  - private finance (user charges) when good tends to be private – benefit principle
  - public finance (grants, subsidies)
    - ◆ when non rivalness and/or large externalities
    - ◆ ev. quality aspects
- ◆ Subsidies to institutions vs individuals

# Modes of financing higher education II

Type of goods	Forms of provision
	<b>Public provision</b>
<b>A</b> Public (non-rival, non excludable)	1 Public sector production without user charges
<b>B</b> Club/toll (non-rival to a congestion limit, excludable)	2 Public sector production with user charges
<b>C</b> Quasi-Public (rival, excludable; significant externalities)	3 Public production with user charges and vouchers or grants to consumers
<b>D</b> Common pool (rival, exclusion possible or difficult, if absent leading to congestion/exhaustion/extinction)	4 Public contracts to private producers to supply goods and services to the government for user charge or 'free' disposal
<b>E</b> Private (rival, excludable)	5 Public contracts to private producers to supply goods and services to the government for user charge or 'free' disposal and grants to producers or consumers with vouchers or grants to cover charges
<b>F</b> Merit wants (lack of appropriate information and/or complex assessment for the typical consumer)	6 Public/private mixed production with private finance and/or government grants finance
	7 Voluntary, non profit production with private finance and/or government grants finance
	8 Private sector production with private finance
	<b>Private provision</b>

# Recent Trends in Financing

- ◆ Trend to shift from public to private funding due to privatisation of output
  - ◆ labour market concerns
  - ◆ diminishing public resources
  - ◆ competition and increasing efficiency (quality, cost)
- ◆ Private financing by:
  - cost recovery strategies (fees, voucher system)
  - grants and loans schemes
  - capital market
  - income diversification (patents, private services)



# Research

## ◆ Public good => public finance

- non excludable
- non rivalness
- cumulativeness of knowledge
- externality of knowledge production

## ◆ Private elements => private finance

- fundamental vs applied research
- trade secrets, patents (assignment of property right by the state)
- support, limited understanding

# Research paradigm

## ◆ «Commodification» of research vs Open Science

- scientific methods
- open communication of findings (dissemination)
- peer review as control of quality

# Tentative conclusions

- ◆ Market failure justifies to some extent government intervention (provision, financing), but there are also government failure
- ◆ Economic analysis privileges efficiency over equity considerations
  - How to define equity and how much resources ?
  - What are non economic objectives ?
- ◆ Public production or funding offers the greatest influence over institutions and activities