

ECONOMICS OF EDUCATION

Sponsored by a Grant TÁMOP-4.1.2-08/2/A/KMR-2009-0041

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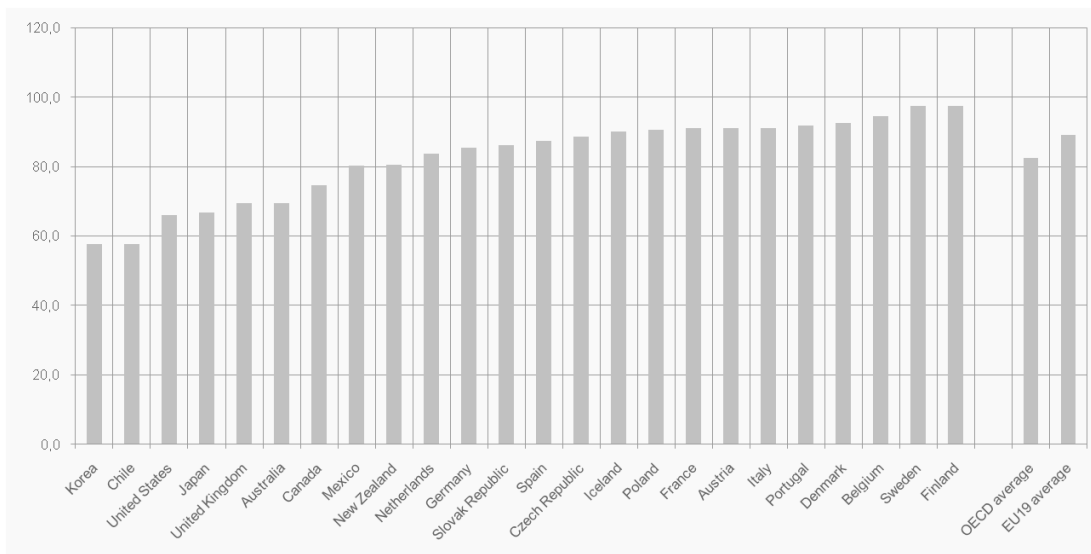
June 2011

Week 3

Government investment decisions

Share of public expenditure on educational institutions 2007.

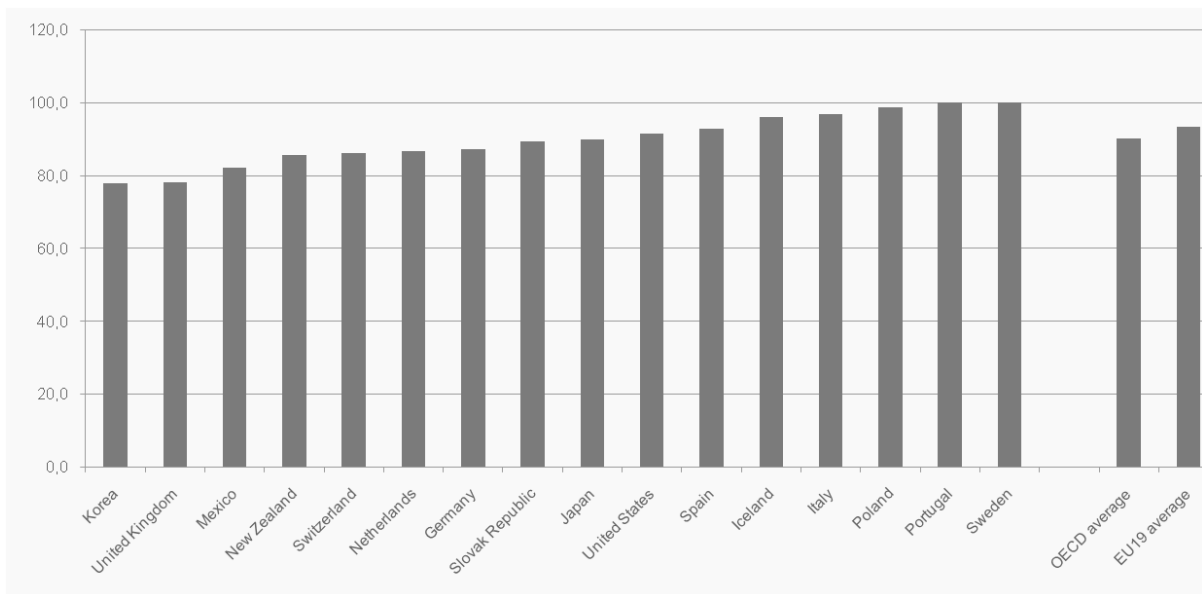
All levels of education



Source: OECD Education at a Glance 2010

Share of public expenditure on educational institutions 2007.

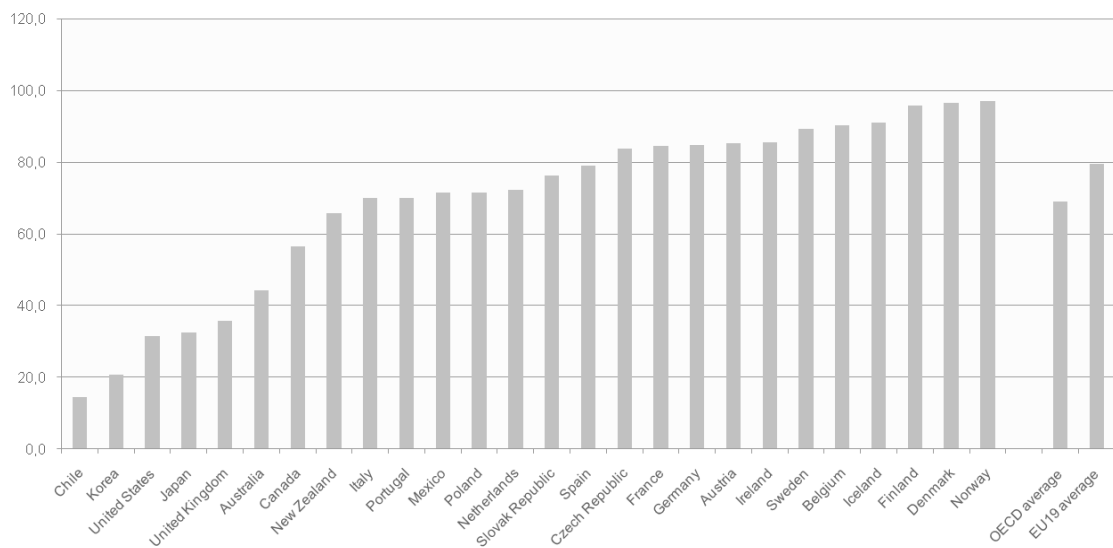
Primary and secondary education



Source: OECD Education at a Glance 2010

Share of public expenditure on educational institutions 2007.

Tertiary education



Source: OECD Education at a Glance 2010

Government investment decisions

1. Government is an employer → invests in human capital on similar basis as private firms.
2. To influence individuals' and firms' investment decisions
 - A) Externalities
 - B) Market imperfections may lead to wrong private decisions
 - C) The information problem
 - D) Equity reasons

A) Externalities

"A stable and democratic society is impossible without widespread acceptance of some common set of values and without a minimum degree of literacy and knowledge on the part of most citizens. Education contributes to both. In consequence, the gain from the education of a child accrues not only to the child or to his parents but to other members of the society; the education of my child contributes to other people's welfare by promoting a stable and democratic society." (*Milton Friedman, The Role of Government in Education 1962*)

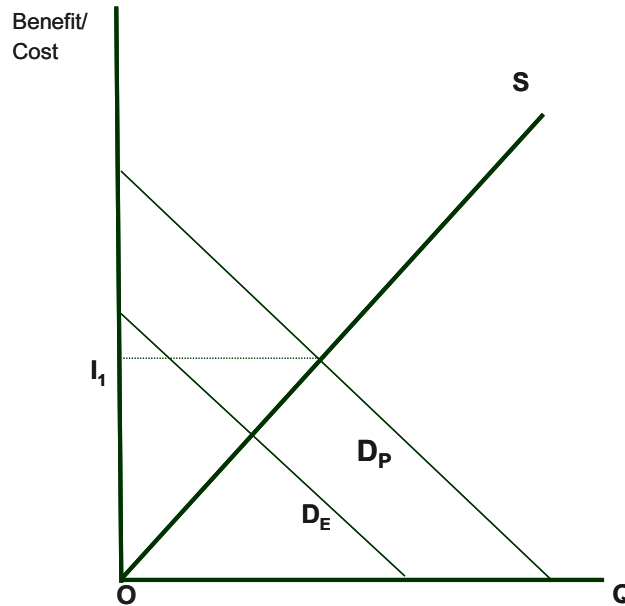
Major external benefits of education

- Necessary to effective democracy and democratic institutions
- Important to the adaptation of technical change
- Lower crime rates and reduced penal system expense
- Lower welfare, Medicaid, unemployment compensation and public health costs
- Reduced imperfections in capital markets
- Public service in community and state agencies
- Complementarities in production

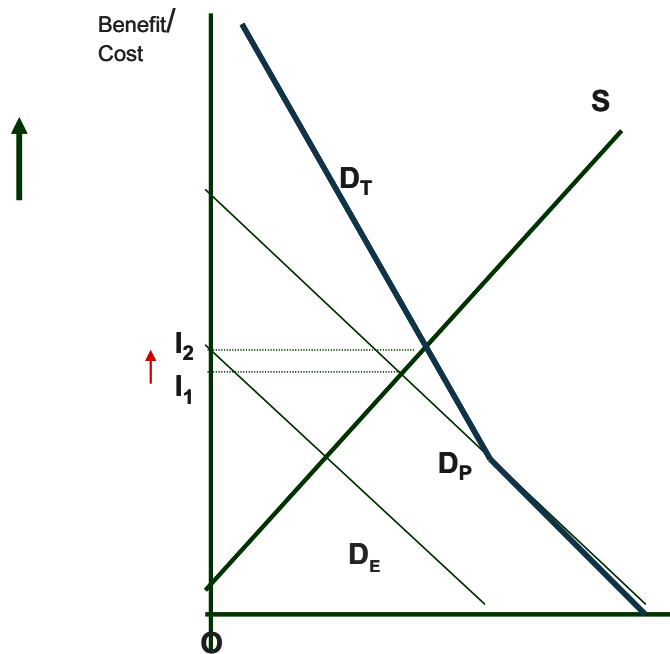
Source: McMahon, Externalities in Education 1982

Optimal level of investment in education

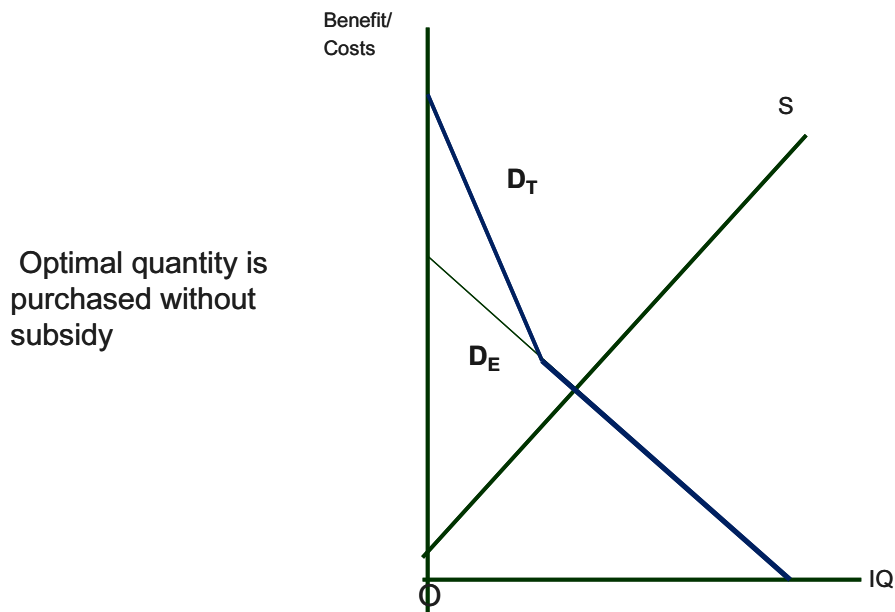
Private and external benefits



$$D_P + D_E = D_T$$



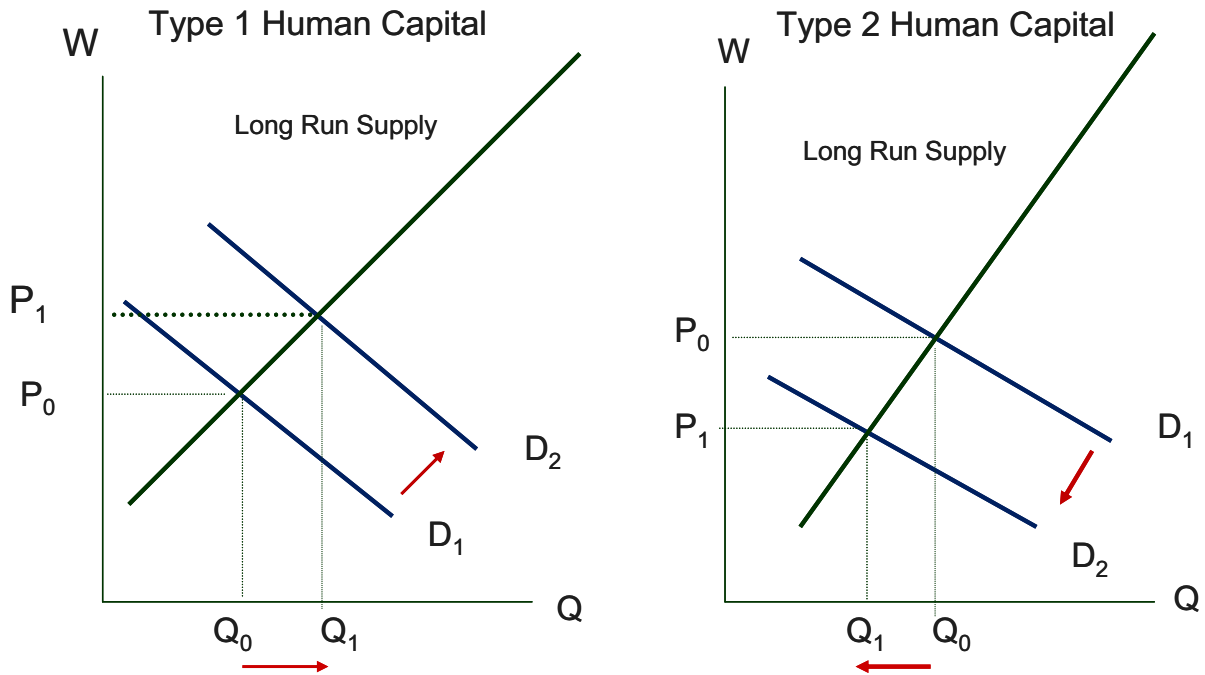
Optimal level of investment in education if externalities are inframarginal



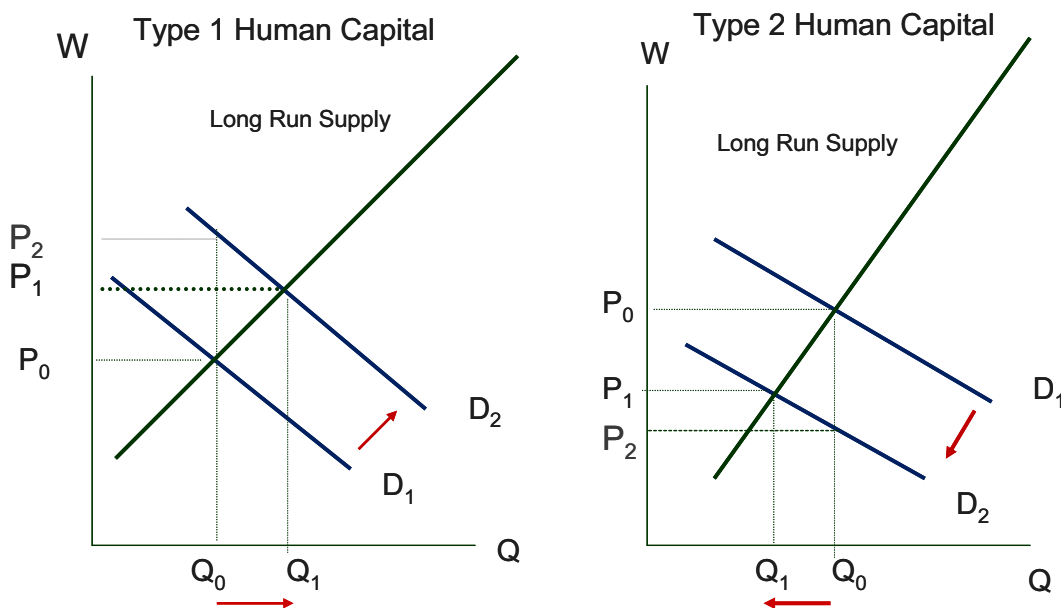
B) Market imperfections

- Imperfect capital market for the financing of human capital investments (lack of collateral)
- Weak private sector training capacities

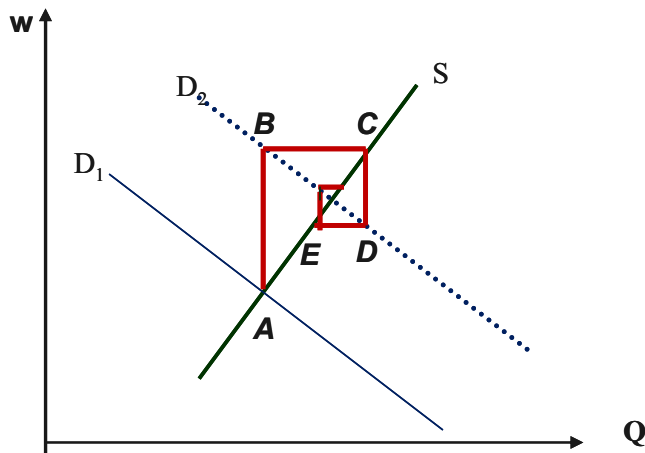
C) Imperfect informations – the cobweb cycle



Supply adjust with a time lag as training period is long



In the short run there is a price (wage) adjustment



If education decisions are based on current wages

Training period 4-5 years

A–B: wage increase, increasing enrolment, supply does not increase yet

B–C: 4-5 years later – sudden increase in labor supply

C–D: wage decrease as a result of increasing supply

D–E: decreasing enrolment, 4-5 years later decrease in supply

Premises for a cob-web cycle

- Low potential mobility to other occupations
- Long training period
- No substitution between differently educated labor (inelastic demand)
- Education choices are based on actual labor market conditions