#### GROWTH EFFECTS OF EDUCATION AND SOCIAL CAPITAL IN THE OECD COUNTRIES by

Jonathan Temple

Andrea Di Fiore - Matteo Pinna

# **Today's Topics**

- 1. Intoduction
- 2. Educational and growth
- 3. Social capital and growth
- 4. Conclusion

#### Introduction

Public and private expenditure on educational institutions accounts for about 6 per cent of the collective GDP of the OECD countries, or roughly \$1300 billion dollars each year.

One aim of this article is to examine the available evidence on the benefits of education in developed countries.

A second theme of the survey is the relation between growth and what has come to be known as "social capital"

#### **Educational growth**

The aim here is to see whether formal models shed any light on the possible connections between education and growth. Education makes a fundamental contribution to personal development, and probably to the health of societies more generally. In thinking about policy, it is crucial to remember that education may have significant welfare benefits that are not captured in the models and data typically analysed by economists and governments.

It is often claimed that education plays a central role in growth.

- Can this argument be given a secure foundation in terms of economic theory?
- Do the models capture the growth effects of education?

Lucas 1988 and Uzawa 1965 start to analyze the importance of human capital in the growth process.

Their analysis are focused on the level of knowledge instead of educational level.

Romer in 1990 claimed that human capital is a key input in the production of new ideas.

These models are important for three reasons:

- As we have seen above human capital is a relevant input for new ideas
- They sometimes yield the result that *laissez-faire* outcomes delivers slower growth than is social optimal
- Third in searching for the determinants of growth policy on education is one of the first places to look

Evidence from labour economics:

#### Ln w= $\alpha$ + $\beta$ 0S+ $\beta$ 1E+ $\beta$ 2E^2

W= wages; S= years of schooling; E= a proxy for labour market experience

This Formula has problems in how to quantify the educational weight between different countries:

Years of schooling can be different in term of quality in each country. Education in the same country can be different also between different schools: a student in a higher quality school will achieve a higher return of education.

Labour economists seem to be agreed that private rate of return to year's extra schooling is typically between 5 % and 15%.

Evidence of growth accounting:

Many studies show that change in labour quality in 1949 - 1973 improved total growth of X percentage. This does not imply that, in the absence of change in labour force quality, the growth rate of output would have been precisely X percentage points lower. This means that growth accounting does not capture indirect effects.

**Evidence from growth regressions** 

These models consider the educational level very important but they examined two main problems.

- Lack of studies with direct relevance to the OECD countries
- Importance of the initial level of human capital: the measured effect is too large to be credible.

# Social capital and growth

In explaining growth makes sense to concentrate on those dimensions of societies which have a strong prior claim on our attention.

The concept of social capital appears to be a potentially formidable way of discriminating between countries and their growth prospects.

#### Social capital and growth cont.

"Social capital refers to features of social organisation, such as trust, norms, and networks, that can improve the efficiency of society by facilitating co-ordinated actions".

Putnam 1993

#### Social capital and growth cont.

#### **Empirical evidence**

The most important macroeconomic evidence is a survey about 29 different markets where they asked if they trust people of their country. The percentage of positive respondent forms a potentially useful index of trust.

Knack and Keefer construct a second index: Civic index. This index is positively correlated to the index trust.

#### Social capital and growth cont.

Trust has a positive effect on educational achievement, but it should be clear that causality may run in the opposite direction. There is a strong correlation between trust and an estimate of average years of schooling. Education can strengthen trust and civic norms.

If we see trust as endogenous to the extant to the quality of education we have the beginning of a potentially important externality.

#### Conclusions

Education does not have to be justified solely on the basis of its effect on labour productivity. Students are not taught civics, or art, or music solely in order to improve their labour productivity, but rather to enrich their lives and make them better citizens

The literature on social capital and growth is at an earlier stage than the macroeconomic evidence on education, and the policy implications are less clear.