

WORKSHOP ON THE MEASUREMENT OF HUMAN CAPITAL

Jointly organized by the OECD and the Fondazione Agnelli

Turin, 3-4 November 2008

Draft agenda

Background and goals

Despite the central role of “human capital” in the research and policy discussions – as a determinant of economic growth, of the sustainability of development paths, and of strategies to avoid social exclusion – few comprehensive measures of the total stock of human capital have currently gained broad acceptance. Developing more comprehensive measures of human capital would allow not only to better assess its contribution to growth and well-being but also to project its future evolution – in a context where both demographic (i.e. the exit from the labour market of cohorts that are as educated as those replacing them) and educational factors (i.e. the closing of the gap in educational attainment between boys and girls) could dampen the pace of accumulation of human capital.

While several “proxy” measures of human capital currently exist (i.e. indicators of educational attainment of the population, or of the average years of schooling) they all have limits, such as ignoring the educational competencies gained outside schools, the quality of these competencies and their depreciation, as well as non-market returns to education. A more comprehensive picture of human capital could be based on accounting frameworks measuring both inputs and outputs of human capital. A possible framework has been proposed by a panel of the US National Academy of Science, while national and international experiences developing some more specific perspectives. The workshop would gather practitioners in human capital measurement. Its aim is to identify suitable approaches for the comparative measurement of the aggregate value of human capital and of how it is distributed in society, which could provide the basis for comparative work on this issue by the OECD.

Proposed organisation

Monday 3 November

9h00-9h30: Registration

9h30-10h00: Opening and communications

10h00-12h30: **First session: Concepts, frameworks and measures**

10h00 – 10h45: 1.1. *Human capital: theory and practice. Dale Jorgenson (Harvard University)*

Interest in measuring intangible assets has recently experienced a major revival. Human capital is by far the most important of these assets. The most promising point of departure for measuring human capital is the concept of lifetime labour incomes for all individuals in the population. This concept corresponds

precisely to the asset values for investment goods used in accounting for tangible assets in the OECD Manual on Measuring Capital. Starting with lifetime labour incomes, it is possible to measure the investment in human capital, the services of human capital in production, the consumption of these services in the form of leisure, and the revaluation of human capital as rates of remuneration increase. In short, human capital can be fully integrated with systems of national accounts, opening the way to fruitful and informative international comparisons and comparisons over time.

Questions

10h45-11h00: COFFEE BREAK

11H00-11h45: 1.2. *The NAS Framework for the measurement of human capital and education. Katharine Abraham (University of Maryland)*

A panel of the US National Academy of Sciences (NAS) recommended in 2005 the development of a comprehensive satellite account for investment in formal education and the resulting stock of skill capital as a first step in the construction of a more comprehensive Human Capital Account. Such an account would separately assess both the inputs and the outputs of formal education, and incorporates both market and non-market elements. The presentation will describe the main features of this approach and its data requirements.

Questions

11h45-12h30: 1.3. *Human Capital and Investment in Education: A Streamlined Approach. Barbara M. Fraumeni (Muskie School of Public Service, University of Southern Maine and National Bureau of Economic Research)*

If human capital accounts are to be constructed by statistical agencies or by international organizations such as the OECD on a regular basis, they must require relatively few resources to construct and little time to update. This presentation will be a progress report on the effort to update the Jorgenson-Fraumeni human capital and investment in education estimates produced in 1992, most importantly relying on far less data than employed in the original research. It is hoped that robust human capital estimates be constructed with a blend of categorical data from the labour data base maintained by Mun Ho which underlie the US KLEMS data base and information on enrollment and population by single year of age and grade enrolled or highest education level completed.

Questions

12h30-14h30: LUNCH

14h30-18h00: **Second session: National Practices**

The goal of this session will be to provide a stocktaking of statistical practices in member countries. Participants to the workshop are invited to prepare information notes describing the state of play in human capital measurement in their country.

14h30-15h00: 2.1. *Australia. Jill Charker (Australian Bureau of Statistics)*

ABS developed in 2001 experimental measures of the stock of human capital, measured as the discounted value of the future income streams that are generated by each person's skills. These estimates, based on Census data available at 5-years intervals, allow charting the evolution of human

capital over time as comparisons to other forms of capital. The presentation will describe the approach used, and the lessons learned from this work.

Questions

15h00-15h30: 2.2. *Norway. Liu Gang (Statistics Norway)*

Statistics Norway has developed in recent years measures of the total stock of human capital based on both direct approaches (based on either inputs or outputs of the educational sectors) and indirect approaches (the discounted value of the income streams that are not attributable to resource rents, real and financial capital). The presentation will illustrate methodologies and compare estimates based on various approaches.

Questions

15h30-16h00: 2.3. *Canada. Wulong Gu (Statistics Canada)*

A project at Statistics Canada is developing measures of the various components of total wealth, including those derived from the investments made in human development stemming from education (human capital). The paper examines several methods to capture human capital, comparing the sensitivity of each to underlying assumptions, and the results of each approach. Human capital measures will help deepen understanding of the effects of investments in education and other forms of human development on economic performance, and in living standards in Canada.

Questions

16h00-16h30: COFFEE BREAK

16h30-18h00: General Discussion

20h30-22h00: DINNER, Il Circolo dei Lettori – Via Bogino 9

Tuesday 4 November

9h30-11h00: **Third session: Comparative experiences**

9h30-10h15: 3.1. *The European Human Capital Index. Peer Ederer (Lisbon Council)*

The Human Capital Index is a measure that aggregates the economic value and opportunity costs of four types of human capital development (parental and social environment; secondary schooling, tertiary training, and skills acquired on the job), where each of these components is corrected for two kinds of depreciation (obsolescence and forgetting). The presentation will describe the main features and limits of the approach, and the current status of research.

Questions

10h15-11h00: 3.2. *OECD measures of human capital and survey-based measures of students and adults' competencies. Bo Hansson (OECD)*

The OECD/UNESCO collection of educational statistics covers a large variety of fields, with the most aggregate and comprehensive measures of human capital based on either average years of schooling or on attainment data. In recent years, it has also pioneered the use of direct measures of skills and competences for students and (in the near future) for the entire population. The presentation will

highlight potential uses of these indicators in the perspective of the construction of more comprehensive educational accounts.

Questions

11h00-11h30: COFFEE BREAK

11h30-13h00: **Round Table discussion**

11h30-12h00: 3.3 *Human Capital: From Indicators to Accounts. Barbara Fraumeni (Muskie School of Public Service, University of Southern Maine and National Bureau of Economic Research)*

Despite the critical role human capital plays in economic growth, few comprehensive measures of human capital exist to aid researchers and policy-makers. The objective of this paper is to suggest how OECD might develop in the medium term human capital accounts to facilitate single country and cross-country analysis and comparisons. Starting from an existing base of education indicators and human capital indexes, the goal is to construct human capital investment and stock measures and to value these components of the human capital accounts. Demographic data and market and nonmarket information will serve as the foundation for this effort. Some discussion of longer term goals will highlight the trade-offs implicit in the choice of medium term-goals.

12h00-13h00: Panel discussion: Enrico Giovannini (OECD), Dale Jorgenson (Harvard University), Katharine Abraham (University of Maryland), Andrea Gavosto (Fondazione Giovanni Agnelli), Peer Ederer (Lisbon Council)

The round table will identify what has been learnt from the workshop and the most suitable approaches that could be pursued in a comparative setting.

13h00: Workshop ends.

13h00-14h00: LUNCH