Investing in childcare: what are the individual and collective returns?

A dynamic microsimulation of the French case

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Economic arguments are often dominant in the set of incentives put forward by national and international institutions like the European Union or the OECD to encourage the investments in childcare services to facilitate the conciliation between work and family life of parents (Courtioux and Thévenon, 2007). Such investment is for example part of the target adopted within the European Employment Strategy encouraging countries to provide childcare services for at least one third of children under age 3 in 2010. This is expected to positively impact the volume of hours worked by current employees, and also to encourage a labour supply of potential workers. The positive long term impact on employment rates, human capital formation and consequently on growth are considered to be sufficiently important to legitimise important public investments in childcare structures. However, although this "cost and benefits" approach is a key argument to promote such investments, evidence on their rewards is relatively scarce (OECD, 2005; Letablier et al., 2008). Esping-Andersen (2008) provided very basic figures on the rewards of the investments in childcare in Denmark, but this can only be considered as a raw estimation.

Our paper will assess the returns which can be expected in France from such an investment in childcare services in order to support the combination between work and family formation. We assess the question of the potential gain in individual returns of this investment by comparing the career of male and female (controlling the diploma) and the related financial flows over the life course (wage, income tax, unemployment benefit). We appraise the question of the collective return by an evaluation of the childcare cost and the increase in taxes due to the increase in female activity rate.

In this perspective, we will use a dynamic microsimulation model. The GAMEO model developed by the EDHEC has the main advantage, compared to other French microsimulation model, of providing simulations of individual paths of career and associated income from detailed characteristics of educational background of individuals (EDHEC 2008, Courtioux,

2008). It can simulate career and related financial flows for the individuals of a given generation, and then compute individual rates of return.

The simulation will be based mainly on data derived from the French Labour Force Survey and will follow a three-step procedure: we first evaluate the distribution of the individual rate of return in simulating the life course of 32,947 individuals who represent the individuals born in 1970 in terms of sex, diploma and entering labour forces' age; then we discuss and evaluate the cost of a full-child care regime which could lead to close the gap between male and female considering their career, then, we simulate the impact of variations in childcare subsidies and the related career prospects of mothers and the implications for public return.

References:

Courtioux P., Thévenon O. (2007), « Les politiques familiales dans l'Union Européenne et la Stratégie de Lisbonne : quelques enseignements de l'expérience française », *Horizons Stratégiques,* n° 4 :176-195.

EDHEC (2008), « Le modèle de microsimulation GAMEO. Version 1.1, Brochure Pratique » EDHEC, Pôle de recherche en Economie.

Courtioux P. (2008), « How income Contingent Loans could affect Return to Higher Education : a microsimulation of the French case », EDHEC Working Paper.

Letablier M.Th., Math, A., Thévenon O., Lucy A. (2008), "The costs of raising and the effectiveness of policies supporting parenthood" report for the EU, DG Employment and Social Affairs.

OECD (2005), *Babies and Bosses: reconciling work and family life*, vol 4: Canada, Finland, Sweden and the United-Kingdom.