

# The Relationship between Consumption, Labor Supply and Fertility - Theory and Evidence from Japan

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## Abstract

We present an alternative explanation of the positive relationship between total fertility rate (TFR) and female labor participation rate (FLPR) observed in recent cross section of OECD countries. We first show quality adjusted consumption is related to fertility and female labor supply in a general equilibrium model with vertical quality differentiation and heterogeneous labor. Then we verify this relationship with Japanese cross sectional data from 8 different points in time (every five years from 1970 – 2005) in which a positive correlation between TFR and FLPR among prefectures (regions) have been observed since 1980. We show that consumption variables are statistically significant when they are added to the cross section regression of TFR on FLPR. However, the FLPR coefficient is no longer significant at the 5% level when quality of consumption variables are included in the regression. Furthermore, FLPR has a statistically significant negative effect on TFR in addition to the statistically significant consumption variables, once we take both time-variant regional heterogeneity of consumption and time-invariant heterogeneity into account using the fixed effect model.

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