

The (low) productivity roots of Italy's fertility crisis

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Abstract

This study examines the relationship between local firm productivity and fertility outcomes in Italy, advancing the hypothesis that productivity is a key structural determinant of household economic security and, in turn, fertility decisions. Although the demographic literature extensively documents the role of economic uncertainty in explaining persistently low fertility rates (Comolli, 2017; Matysiak et al., 2021; Vignoli et al., 2020), the contribution of productivity to income adequacy, employment stability, and future expectations remains largely understudied. Leveraging a highly granular panel dataset of Italian municipalities over the period 2015–2022, the analysis investigates the association between local firm productivity and fertility rates, controlling for a comprehensive set of socio-economic, demographic, and territorial factors, including educational attainment, migration balances, housing costs, firm size distribution, sectoral specialization, and urban–peripheral gradients. To address endogeneity concerns and identify causal effects, the study adopts an instrumental variable strategy. Historical land suitability for wheat cultivation is exploited as an exogenous source of variation in contemporary productivity, reflecting long-run geographic and agronomic characteristics that shaped capital accumulation and local economic development, while remaining plausibly unrelated to current fertility behavior except through productivity. The results provide robust evidence that higher local productivity leads to significantly higher fertility rates. These findings challenge the conventional view of a trade-off between economic growth and social well-being, whereby resources devoted to competitiveness are assumed to detract from social protection, and vice versa. Instead, the analysis suggests that productivity-enhancing policies should be regarded as a core component of demographic and family policy, alongside more traditional welfare interventions.

Keywords: Fertility, Productivity, Instrumental variable, Italy, Municipal level

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