"Growth, Unemployment, Embodied vs Disembodied Technological Progress and Capital-Skill Complementarity"

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We construct an endogenous growth intertemporal general equilibrium model with two types of jobs and two types of workers. We allow for job competition between high- and low-skilled workers on the low-skilled segment of the labour market and for on-the-job search for high skilled. Matching processes are represented by matching functions à la Pissarides. Workers search intensities are endogenous. We distinguish between embodied and disembodied technological progress and endogenize them through a learning by doing process based on capital accumulation. Biased technological change is introduced via new technologies-skill complementarity relationship and embodied technical progress. The model is calibrated and simulated to evaluate the impact of various types of shocks. The model reproduces quite well the productivity slowdown puzzle, the unemployment rate evolutions and the relative wage stability observed over the last decades. It suggests strong interactions between embodied technological progress, biased technological change, discouragement effects and job competition.