

### **Abstract**

This paper investigates the transitional dynamics of a basic Schumpeterian growth model under constant relative risk aversion preferences in which the equilibrium quantity of production depends on the innovator's vintage and time. In this model, there are three patterns of the evolution of wage inequality: (a) skill-biased technological change, i.e., technological progress leads to a widening of wage inequality; (b) unskill-biased technological change, i.e., technological progress leads to a contraction of wage inequality; and (c) non-biased technological change, i.e., technological progress is independent of wage inequality. Conducting comparative dynamics of an unexpected permanent increase in research productivity in any sector, which we interpret as the arrival of new general purpose technologies, we show that the property of technological change shifts entirely from unskill-biased to skill-biased. The evolution of wage inequality in the model is then consistent with that of the US economy during the period from the 1930s to the 2000s.