

Technical Change and Factor Bias in Polish Industry (1962-1983)

Katherine Terrell

July 1992

Abstract

This is the first study to measure the rate of technical change in socialist industry allowing and testing for a more complex production function and for the possibility that technical change is embodied vs. disembodied and factors saving vs. using. The study seeks to address the question of how effective was the investment in western technology throughout these two decades, but especially during Gierek's New Development Strategy. The findings indicate that the more complex functional form is warranted and that in six of the eight industries technical change was non-neutral, which suggests that the existing literature suffers from misspecification bias. Technological change was found to be western capital using in only two of the eight industries and there is a pattern of strong positive, but non-increasing, technical change in four of the eight industries. It does not appear from these findings the Gierek's strategy raised technical efficiency.