

Determinants of Labor Productivity in Manufacturing and Service Industries in Korea

Labor productivity growth in Korea has been slowing down across all industries in the 2000s, which has acted to lower national economic growth substantially. The productivity gap between Korea and advanced economies has narrowed considerably in manufacturing while it has remained without substantial change in services. Therefore, it is crucial to adopt differentiated growth strategies that take account of productivity levels and industry characteristics.

The central objective of this paper is to analyze empirically the determinants of labor productivity in manufacturing and services in Korea. Regression analyses use a panel of Korean industries and emphasize the roles of R&D and of fixed capital, and the convergence of productivity. The results provide empirical evidence that productivity growth in manufacturing is significantly improved by R&D, while that in services is positively affected by fixed capital. This finding implies that an innovation-based strategy is more efficient in manufacturing, given that it is closer to the technological frontier, while an investment-based strategy is appropriate in services, given its relatively backward technology. In addition, the estimates for the interaction between R&D and productivity gap suggest that the R&D effects on productivity turn out to be stronger when the productivity of the industry is relatively low.

Keywords: Economic growth, Labor productivity, R&D, Fixed capital, Innovation

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