

Charuwan Chungprasert 2009: Factors Affected to Output per Worker Growth in the Manufacturing Sector. Master of Economics, Major Field: Economics, Department of Economics. Thesis Advisor: Ms. Wallapak Polasub, Ph.D. 143 pages.

This paper examines factors affecting the growth in output per worker in the Thai manufacturing sector. The model applies the Cobb-Douglas production function using secondary data from official documents dated from 1972 to 2007. Two estimation techniques are used in the Model: the Cointegration method provides an analysis for the long-run test in output per worker growth and the Error Correction Model (ECM) assesses the short-run adjustment into the long-run equilibrium. In this study, the two main assumptions are: (i) labour productivity increases over time represented by the “effective labour unit” and (ii) capital stock is comprised of “domestic capital stock per worker” and “private foreign capital stock per worker”. Other variables used in the model include: labour’s quality (years of education), public education budget per worker, public health budget per worker and a dummy variable for an economic crisis which is exogenously determined.

The econometric results indicate that output per worker growth is determined, in the long-run, by the growth of private foreign capital per worker, the growth of domestic capital per worker, the growth of public education budget per worker and the economic crisis. However, output per worker may deviate from the long-run equilibrium path because of the shock effects. The rate at which the long-run equilibrium stabilizes is 37 per cent per time period. These findings provide insights for government agencies interested in increasing output per worker growth and enhancing long-term stability. The results suggest that domestic and foreign investors should be encouraged in order to accumulate capital stock in the country. Policies that attract foreign investment should be implemented, particularly, those involving technological transfers, alongside stimulus packages that promote private and public investment. Moreover, human capital should be supported in order to meet different manufacturing technology needs. This could be achieved via multiple strategies including designing curriculum through collaboration between institutions and private industry, providing internship opportunities, and promoting basic health awareness.

---

Student’s signature

---

Thesis Advisor’s signature

\_\_\_\_ / \_\_\_\_ / \_\_\_\_