

PREECHA THEPLERTBOON : ECONOMETRIC FORECASTING OF CAPROLACTAM
DEMAND IN THAI INDUSTRY. THESIS ADVISOR : ASST. PROF. SUTHAS
RATANAKUAKANGWAN, 95 PP.

This research was to study for tendency in planning and policy evaluation of caprolactam and downstream industries in petrochemical industry. The main objective was being study various variables relation which concerns about caprolactam demand and downstream industries. The character of model equations are simultaneous equations which approximate parameters of model equations by econometric method.

It was found that the relation of various equations are as follows:

$$\ln C = -2.4 - 0.3185 \ln P + 1.0344 \ln \text{Prod} + 0.6174 \ln \text{GDPH}$$

$$\ln \text{Prod} = 2.4912 + 1.0336 \ln \text{Yarn} - 0.3430 \ln \text{Pnet}$$

$$\ln \text{Yarn} = -2.1555 + 0.7688 \ln \text{Wove} + 0.3365 \ln \text{Knit}$$

$$\text{Pnet} = 415569 + 0.2861 \text{Fish} + 2.2651 X$$

which variables C = quantity of caprolactam import, P = unit price of caprolactam import, Prod = actual production of nylon fiber, GDPH = gross domestic products per capita, Yarn = actual production of yarn, Pnet = actual production of fishing nets, Wove = actual production of woven fabrics, Knit = actual production of knitted fabrics, Fish = quantity of catching marine animals, and X = quantity of fishing nets export.

The results of statistics analysis of 4 model equations can be accepted that independent variables can describe dependent variable in each equation more than 80 percent (R^2 more than 0.8). For other statistics testing is satisfying. The model equations are valid if the local production of caprolactam isn't yet started.