

## CHAPTER VI CONCLUSION AND IMPLICATION

### 6.1. Conclusion

This study discusses empirically about domestic demand for the potential cash crop commodity, natural rubber. It is the amount of natural rubber that is absorbed domestically by industrial business to be used as raw material.

There are some findings from which the researcher conducts empirical investigation on domestic demand for natural rubber related to the influence of the price, total real GDP, and related-good price. They are stated as follow:

1. Partial adjustment model (PAM) is the proper model to analyze demand model of economy, that is, the effect of domestic price of NR (*PNR*), Indonesian total real GDP (*GDP*), world price of synthetic rubber (*PSR*), on domestic consumption for NR (*C*). It is shown by:
  - a. the size of  $R^2 = 0.8126$  meaning that about 81 percent of the variation in the domestic consumption is explained by *PNR*, *GDP*, *PSR* and plus dummy variable (*D*);
  - b. the size of F-statistic = 14.7464 is greater than the F-table (2.93). It means that all explanatory variable has a joint impact on industrial business absorption of NR in Indonesian market;
  - c. the lag of dependent variable as the independent variable ( $C_{t-1}$ ) significantly influences the total consumption;

- d. the size of short-run constant of -2.3184 means that in the short-run, the contribution of factors not included in the model is only 0.098 tonne (antilog of -2.3184) while in the long-run the contribution is 0.0360 tonne. Mostly, in both short- and long-run, the size of domestic consumption comes from the three factors plus dummy variable (*PNR*, *GDP*, *PSR*, and *D*) by the average of 112.75 tonne per annum.
2. It is proven that there are externality factors significantly influence total consumption for NR.
  3. The long-run price elasticity of demand for NR is substantially greater (in absolute terms) than the corresponding short-run elasticity, which is also true of the income elasticity of consumption for NR and the cross-elasticity of both commodity natural and synthetics rubber.
  4. In both short-run and long-run natural rubber does not show any good prospect in domestic market since the commodity is both inferior and elastic price elasticity. In the short- and long-run, the price elasticity is -1.0972 and -1.5738 and the income elasticity is -0.3799 and -0.5449, respectively.
  5. The elastic price elasticity indicates that natural rubber has been considered as an unimportant commodity in domestic market. The consumer simply substitutes to the related goods, such as synthetic rubber (obviously, the cross elasticity is positive) and or even the imported natural rubber.
  6. In both short-run and long-run, synthetic rubber is, in fact, substitute to natural rubber since the cross-elasticity are positive, 1.2177 and 1.7466, respectively.
  7. All classical assumptions are satisfied in this regression model.

## 6.2. Implication

In line with the conclusion, there are several implications to be pointed out in relation to make commodity natural rubber could be promising in domestic market along with the international market. They are outlined as follow:

1. The finding tells that natural rubber is inferior in domestic market. This indicates that features of NR need to be improved. The quality controls may useful to make NR more preferred. The alternative is way to innovate new features of NR itself so natural rubber will be more ready-to-process. It, thus, needs some further labs research requiring technological advance. This highly qualified new feature of NR will, therefore, be able to compete in the market.
2. In the side of industries producing rubber products, technological advance also has an essential role in maintaining the business performance as modern life can not apart from rubber goods. It means the consumers, the businesses, change the machinery, improve the productivity, and introduce new product. As the result, the industries can increase the profits and reduce the cost in line with consuming more high-quality raw material of natural rubber.