THE CONTRIBUTION OF SUPPLY AND DEMAND COMPONENTS TO THE INSTABILITY OF INDONESIAN NATURAL RUBBER PRICE

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of the Requirements for the Degree of
Master of Economics

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Abstract

This study is concerned with the sources of Indonesian natural rubber price instability over the period 1966 to 1992. The main intention is to trace back the price instability into the pattern of supply and demand variability, as well as supply-demand interaction effects, using a decomposition procedure.

An econometric model of the Indonesian natural rubber market is required prior to the decomposition analysis. This model is provided by, respectively, a structural model of the Indonesian natural rubber market, a full reduced form price equation and a directly estimated price equation. All these functions are estimated under linear and static conditions and the estimated price equations are decomposed into the necessary effects.

One finding of this study is that there is very little response by the Indonesian natural rubber market to changes in the domestic natural rubber price, as shown by small values of the own-price elasticities of supply and demand. Further analysis indicates that the demand component is the dominant factor attributable to the Indonesian natural rubber price instability. The supply component and the supply-demand interaction effect are found to have lesser effects on the price instability. Within the demand component, the variance of the world natural rubber price is the main factor affecting the net intercept variance, indicating a strong relationship between the domestic price and the world price.

The main policy implication of this study is the need to tailor the Indonesian natural rubber industry more to market requirements, which can be done in two ways. First, at the international level, policy attention can be focused on different marketing strategies, possibly to the newly industrialised countries in Asia. Paying more attention to a lesser quality rubber, such as crumb rubber, would seem to have good prospects since this type of rubber has shown an increasing demand from neighbouring countries. Second, at the domestic level, rubber-based products, would seem to have a promising future. Focusing more on these industries is likely to increase domestic demand for natural rubber. Finally, the Indonesian natural rubber market cannot be improved without government intervention, especially in the forms of cost-reducing and quality-improving research, especially for small-scale producers.

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