SUMMARY

ADIS IMAM MUNANDAR. Price Behavior of Tin Commodity. Supervised by HERMANTO SIREGAR, TRIAS ANDATI and LUKYTAWATI ANGGRAENI.

Tin is a rare industrial metal with its properties; non-toxic, non-corrosive, and a good conductor. Indonesia, Malaysia and China are the world’s tin producers which can affect tin price on the supply chain. Tin price movements prior to 1985 influenced by ITC (International Tin Council) which is an intergovernmental organization that regulates the world’s tin. Tin price movements after the collapse of the ITC is more volatile than ever before. The main problem of a commodity is the dependence issue on exports for specific commodities within developing countries and the fluctuate behaviour of commodity prices, unstable cycle of commodity prices, tin consumption that does not keep up with supply and demand, as well as the international environment gives influence in the commodity producing countries. Various studies of commodity prices behaviour established by previous researches were not specific to a particular commodity, especially tin. Based on these issues, the purpose of the study are (i) to analyse the factors which affecting prices volatility of tin commodity, (ii) to analyse the determinants of tin price with country specific Indonesia, Malaysia and China, (iii) to analyse the relationship between tin commodity markets of INATIN, KLTM and LME, (iv) to analyse the effect of tin prices volatility towards the tin company’s stock prices.

The research employed descriptive and quantitative approach. We employed data from period 1990 to 2015 based on the availability of data. Literature study has been utilized for the descriptive approach. Method of volatility used Autoregressive Conditional Heteroskedasticity - Generalized Autoregressive Conditional Heteroskedasticity (ARCH-GARCH), determinant of tin price used Error Correction Model (ECM), relationship of tin prices in commodity markets used granger causality, then link volatility between tin price and stock used Vector Error Correction Model (VECM) and confirmed by the experts tin.

The results of the study as follows: (i) price volatility of tin commodity is influenced by commodity prices of crude oil, the price of lead, copper, and US T-Bill 3M, (ii) tin price has a long-term relationship with the country’s macroeconomic in Indonesia, Malaysia, and China and there is a short-term relationship between industrial metals prices, interest rate in Indonesia, industrial production in Indonesia and exchange rate in Malaysia toward tin commodity price, (iii) LME’s prices affect KLTM and INATIN’s prices, KLTM’s prices also affect INATIN’s prices, however both of them do not apply vice-versa, and (iv) the volatility of tin price has a negative relationship with the equity of PT Timah Tbk, Malaysia Smelting Corporation and Yunnan Tin Company Limited.

Managerial implications from the study results divided to three section which are company, investor or trader, and government. For the company as follows: (i) high tin price volatility requires the company to hedge the price, inventory management, and forecasting when conducting exploration, mining, and tin sales to minimize the risk by observing other commodity price and US interest rates, (ii) company’s short-term and long-term planning on tin price determination should pay attention to commodity price, the country’s macroeconomic in Indonesia (interest rate and industrial production) and Malaysia (exchange rate),
Managerial implications for investor or trader as follows: (i) investor or trader may gain tin commodity as one of portfolio because high volatility indicate high return, (ii) investor or trader should keep a stock of tin ingot to reduce the risk of price shock, (iii) LME become a market driver so the investor or trader should look at LME as price reference in management (buy and sell) portfolio, (iv) tin price volatility affects tin company’s stock price so the investor or trader should initiate diversification if they have tin commodity and tin company’s stock. Managerial implications for regulator as follows: (i) high price volatility lead to less developed downstream industry so that the government should conduct policies which support tin’s downstream industry with the development in infrastructure, attract electronic component investor into Indonesia and create domestic market, (ii) tin price affects by the countries of Indonesia and Malaysia which requires the government to maintain tin price at the equitable price, (iii) LME as market driver for tin price in KLTM and INATIN. Thus lead the government to encourages the optimization INATIN and transaction systems in exchange. (iv) tin price volatility affects tin company’s stock price to induce the government to support BUMN companies for diversification practices which not dependence only on tin commodity.

Based on the research, several advices obtained as follows: (i) study on volatility need to include inventory variable and volatility influence towards country’s economy in Indonesia, Malaysia, and China, (ii) study on determinant should conduct theory storage aproach, (iii) deeper research requires as the effort to optimize INATIN exchange in affecting world’s tin price, (iv) further research requires in the influence of tin price volatility toward firm financial performance as well as the influence of futures price towards spot price.

Keywords: determinant, price behaviour, tin, volatility