TITLE: MACROECONOMIC RESPONSES TO OIL PRICE CHANGES AND VOLATILITY

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SUBMIITTED TO THE FACULTY OF ECONOMICS AND ADMINISTRATION, UNIVERSITY OF MALAYA IN PARTIAL FULFILLMENT OF THE REQUIREMENT FOR THE DEGREE MASTER OF ECONOMICS

NOVEMBER 2001

Abstract

Petroleum is the third factor of production and is expected to remain so as Malaysia targets to achieve full industrialization in twenty years time. It is therefore, crucial to understand the impact of oil price on the macroeconomy. Thus, this paper attempts to examine the **short-run dynamics** of industrial production, interest rates and, stock market activity, in relation to oil price changes **and** oil price volatility by using the vector autoregressive **(VAR)** model. Volatility is modeled using the Generalised Autoregressive Conditional Heteroskedasticity **(GARCH)** model. Systematic shocks are introduced and the impacts of anticipated and unanticipated oil price changes are analyzed using the using **impulse response functions** and **variance decompositions.** The results indicate that the effects the unanticipated increase in oil prices has longer and more profound negative impact on the economy than do the anticipated changes.

The system needs typically a period of 6 to 7 months to adjust to impacts of anticipated oil changes, whereas a period of 10 months to a year is common for completion of adjustment to unanticipated changes. Anticipated oil price changes can explain a higher proportion of the forecast variance of the macroeconomic variables compared to unanticipated changes.

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