

# A Multivariate Cointegration Analysis of the Role of Exports to Main Trading Partners in the Malaysian Macroeconomics

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## ABSTRACT

This paper investigates determinants of Malaysian export to the United States (US), Japan and Singapore using annual data from 1970 until 2010. Country specific determinants of trade include real gross domestic product, nominal effective exchange rate, inflation and inward foreign direct investment. The aim of this paper is to discern the dynamic causal chain among gross domestic product, foreign direct investment, real effective exchange rate and inflation in the context of Malaysian exports to the United States. The methodology employed applied Augmented Dickey Fuller test, Johansen and Juselius cointegration test and Vector Error Correction Model to capture the Granger-causal chain among the variables. The major findings ;(a) long-run equilibrium relationship(s) exists between Malaysian exports to its main trading partners and its macroeconomic variables, (b) Malaysia macroeconomic variables have significant influence on its exports to its main trading partners. Most specifically, real gross domestic product lead to expansion in exports performance.

**Key words:** Exports, Gross Domestic Product, Nominal Effective Exchange Rate, Foreign Direct Investment, Consumer Price Index

## 1. INTRODUCTION

Malaysia has a relatively open and small economy. Malaysia has shown a tremendous performance in economics as a result of its liberal outward oriented regime. As a net exporter of oil, Malaysia gains from the rise of the price of global oil. However, Malaysia also suffers the secondary effects of being a trade-dependent economy in case the high prices of oil corrode the growth of global economic. The Malaysian total exports of goods and services grow 61 per cent from 2000 to 2009 (Direction of Trade Statistics, 2010).<sup>1</sup> Major exports include chemicals, liquefied natural gas, petroleum products, electrical machinery and parts, and above all are electronic equipment and semiconductors. As a trade dependent country, Figure 1 shows the principal export markets for Malaysia including the United States (US), Singapore and Japan. According to Figure 1, the Malaysian exports to the United States (US), Japan, and Singapore have been in an upward trend from year 1970 to 2010.

Despite the financial crisis that hit Asia in 1997 which had caused turmoil in the Asian economic, Malaysian total exports remain strong and increasing except for a decline from 2000-2001 and 2006-2009. The decline at the former period was due to the lower semiconductors exports that plunged by 10.8 per cent year-on-year. In particular, the exports grew strong due to supportive external and domestic demands along with spectacular improvements in high technology industries. Table 1 presents the Malaysia exports to its trading partner from 1980 to 2009. In 1980, US had become Malaysia's second largest export direction with 20.74 per cent of its total exports and this value decreased to 10.95 per cent in 2009. In the case of Malaysia exports to Japan, the share of exports also decreases from 22.82 per cent in 1980 to 9.84 per cent in 2009. This is also followed by Singapore with reductions from 19.13 per cent to 13.95 per cent share in 2009. The decline indicates the increasing in exports shares to other countries such as new giant economies, China and India also the European Union (EU) countries.

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<sup>1</sup> Refer to Direction of Trade Statistics (2008).