

**DETERMINANTS OF EXPORTS IN MALAYSIA:
1970 – 2008**

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PENENTU-PENENTU EKSPORT DI MALAYSIA:

1970 – 2008

ABSTRAK

Kajian ini menyiasat faktor-faktor yang menentukan eksport di Malaysia. Secara khususnya, kajian ini meneliti peranan pelaburan langsung asing dalam mempromosikan eksport. Peranan penentu-penentu ekonomi makroekonomi lain termasuk pelaburan domestik, kadar pertukaran efektif benar dan GDP dunia juga dikaji. Kajian ini merangkumi data tahunan 1970-2008. Dengan menggunakan ujian akar unit *Augmented Dickey-Fuller* data siri masa yang dikaji itu ditunjuk adalah tidak pegun pada peringkat paras, tetapi mencapai kepegunan dalam peringkat perbezaan pertama. Keputusan prosedur kointegrasi *Johansen-Juselius* dan *Vector Error Correction Model* (VECM) telah menunjukkan hubungan positif antara pelaburan langsung asing, pelaburan domestik dan GDP dunia dengan eksport sama ada dalam jangka pendek atau jangka panjang. Namun, hubungan yang negatif wujud antara kadar pertukaran efektif benar dan eksport. Kajian ini juga memberikan bukti bahawa pelaburan asing dan pelaburan domestik saling melengkapi dalam mendorong pertumbuhan eksport. Oleh yang demikian, dasar-dasar yang sama pentingnya dan lebih berseragam harus dilaksanakan untuk mempromosikan kedua-dua pelaburan langsung asing dan pelaburan domestik. Selain itu, kadar pertukaran efektif benar merupakan satu instrumen yang berkesan untuk meningkatkan eksport, maka kadar pertukaran yang stabil dan kompetitif harus dikekalkan melalui dasar kewangan yang berkesan.

CHAPTER 1

INTRODUCTION

1.1 Introduction

The structure of Malaysian economy has undergone a remarkable transformation since Malaysia achieved its Independence in 1957. Its economic structure has changed from one based on agriculture-based products to one based on the production of manufactured goods. It is one of the most export-oriented economies in the world. Its export-GDP ratio for 2009 was 103% (Ministry of Finance, 2009). This was a significant increase from about 50% experienced in the mid-1980's to over 95% in the mid-1990's (Athukorala, 2001). It is thus evident that exports had played a major role in generating economic growth in Malaysia. Empirical evidence has also shown that the export-led growth theory is supported in Malaysia (Oskooee-Bahmani and Alse, 1993; Doraisami, 1996). In light of this, sustaining export growth becomes a necessary condition for maintaining economic growth in Malaysia. Sustaining export growth in turn depends on several factors, both external and internal. This study examines the roles of some of these factors, namely foreign direct investment, domestic investment, world GDP and real effective exchange rate in generating exports in Malaysia.

1.1.1 Performance of the Malaysian Economy

At the time of independence in 1957, Malaysia had the highest per capita income in the Asia-Pacific region, excepting Japan. However, during the next two decades Malaysia's ranking dropped as a result of dramatic economic expansion in the four East Asian newly industrialized countries (NICs). The annual growth rate of real gross domestic product (GDP) during the period 1965-86 averaged 5.5 per cent, indicating a very impressive figure according to developing country standards. Yet Malaysia's performance was uneven over time, which reflected the impact of primary commodity cycles and changes in government expenditure. For instance, the growth rate averaged about 6.5 percent per annum during the 1970s, but then it slowed in the first half of the 1980s and subsequently fell to minus 1 per cent in 1985.

The Malaysian economy then entered into a decade of unprecedented growth in 1988. This is the result of implementing the far-reaching structural adjustment reforms which included privatization and re-structuring of state-owned enterprises. These reforms led to tremendous effort growth after the mid-1980s. During this period Malaysia recorded the second-highest gross domestic national product (GDP) growth rate (both in per capita and in absolute terms) in the Asian region. The performance was impressive, which was only second to China (which in any case started rapid growth from a relatively low base).

Unfortunately, the Malaysian economy went into sharp recession in 1997-1998 during the Asian financial crisis, which affected countries throughout the region. Countries including South Korea, Indonesia, and Thailand were deeply affected by the Asian Financial Crisis as well. Malaysia's GDP contracted by more than 7% in 1998. Malaysia narrowly avoided a return to recession in 2001 when its economy was negatively impacted by the bursting of the dot-com bubble (which hurt the ICT sector) and slow growth or recession in many of its important export markets. The global financial crisis threw Malaysia into recession again in 2009, and the economy contracted by 1.7 per cent. This negative growth, however, was much better than the earlier forecast of -3 per cent. By the first quarter of 2010, the economy showed very encouraging signs of recovery, expanding at an astonishing 10.1 per cent.

In July 2005, the Malaysian government removed the 7-year-old peg linking the ringgit's value to the U.S. dollar at an exchange rate of RM3.80 per US dollar. The dollar peg was replaced by a managed float against an undisclosed basket of currencies. The new exchange rate policy was designed to keep the ringgit more broadly stable and to avoid uncertain currency swings which could harm exports.

Almost at the same time, the Malaysian financial system exhibited noteworthy resilience to the 2008 global financial crisis. Malaysian banks are well capitalized and have no measurable exposure to the U.S. sub-prime market. The Bank Negara Malaysia

maintained a conservative regulatory environment, having prohibited some of the riskier assets in vogue elsewhere.

As in the other high performing East Asian countries (HPAEs), rapid export orientation was central to Malaysia’s economic transformation. As stated earlier, the “export coefficient” (total merchandise exports as a percentage of GDP) increased from about 50 per cent in the mid-1980s to over 95 per cent by the mid-1990s. In the 1990s, Malaysia’s export coefficient was the third highest in the developing world after Singapore (over 170 per cent) and Hong Kong (over 140 per cent) (Krugman, 1995).

By 1998, the export coefficient has exceeded 100%. It has since been maintained at more than 100%.

As Table 1.1 shows, the growth rates in exports have always been higher than the GDP growth rates.

Table 1.1: *Growth in GDP and Exports in Malaysia (% per annum)*

| Period | 1961-1970 | 1971-1980 | 1981-1990 | 1991-2000 | 2001-2008 |
|---------|-----------|-----------|-----------|-----------|-----------|
| GDP | 5.2 | 8.3 | 6.0 | 7.2 | 4.9 |
| Exports | 7.5 | 21.7 | 12.7 | 16.8 | 5.8 |

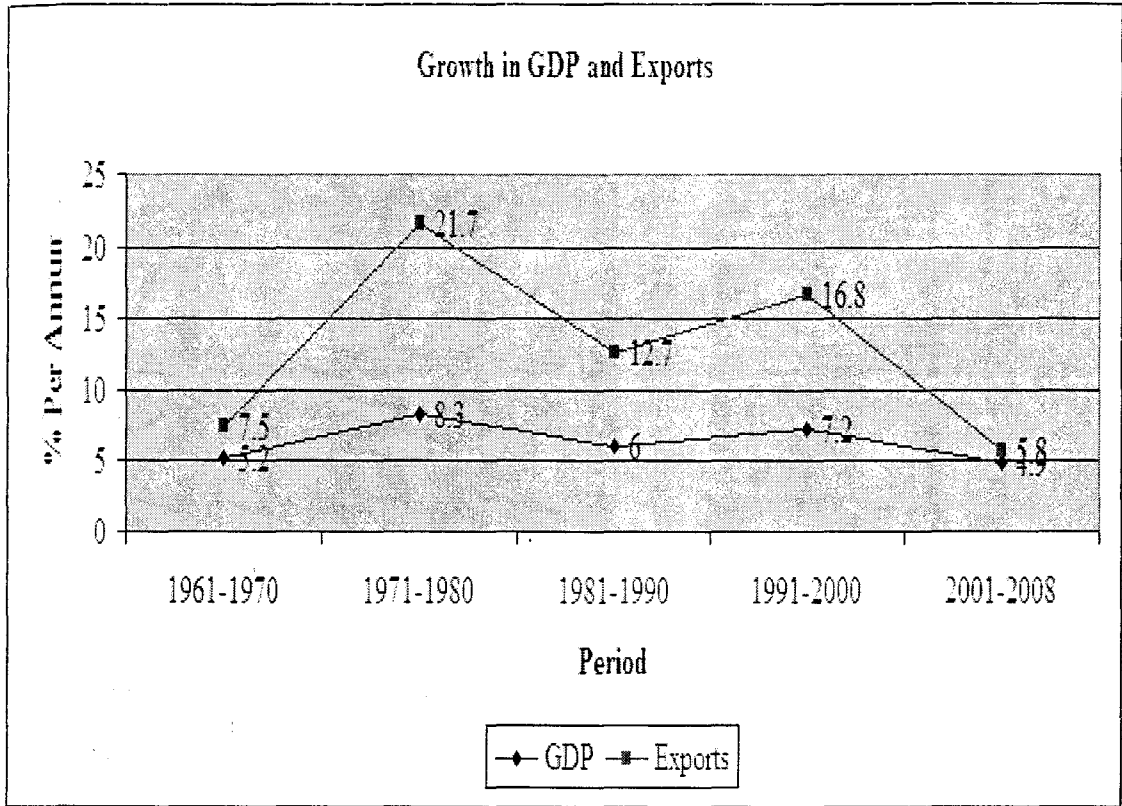


Figure 1.1: Growth in GDP and Exports in Malaysia (% per annum)

In the 1970s and early 1980s, Malaysian economic growth was predominantly accounted for by the expansion of service industries emanating from public sector activities and growth in primary production. Since the late 1980s, not only has there been a significant increase in growth, but much of it has come from the expansion of manufacturing through private sector initiatives. In 1989, for the first time, the manufacturing share in GDP overtook that of agriculture. Between 1987 and 1996, the manufacturing sector grew by an average annual rate of 14 per cent, with the share of manufacturing in GDP increasing from about 20 per cent to over 34 per cent. Between

Foreign direct investment (FDI) played a pivotal role in the expansion of manufacturing production and in particular manufacturing exports. Foreign firms accounted for over 45 per cent of total manufacturing value added and they accounted for over three-quarters of total manufactured exports (Athukorala, 2001).

1.2 Background Of Study

For decades, economies that relied on exports to drive their economies have achieved considerable success in accelerating their economic growth. In Asia, several countries, including Malaysia have taken this route to generate impressive economic growth since the sixties. The success of these export-oriented economies has also resulted in numerous empirical studies that examine the role of exports in generating economic growth. Thus, examining the export-led growth hypothesis is hardly a new area of exploration in the international trade and development literatures.

On the other hand, there are few studies that examine the determinants of exports. If the remarkable economic growth in Malaysia is driven by persistent increase in exports, it is pertinent to ask what then are the drivers of exports? If the growth strategy is to continue to rely on exports, then the determinants of exports should be specified. If the export function is estimated reasonably well, then policies could be devised and implemented to promote exports and subsequently generate growth.

the performance of the world economy and exchange rate fluctuations. These two factors resemble the income and price determinants in a normal demand function.

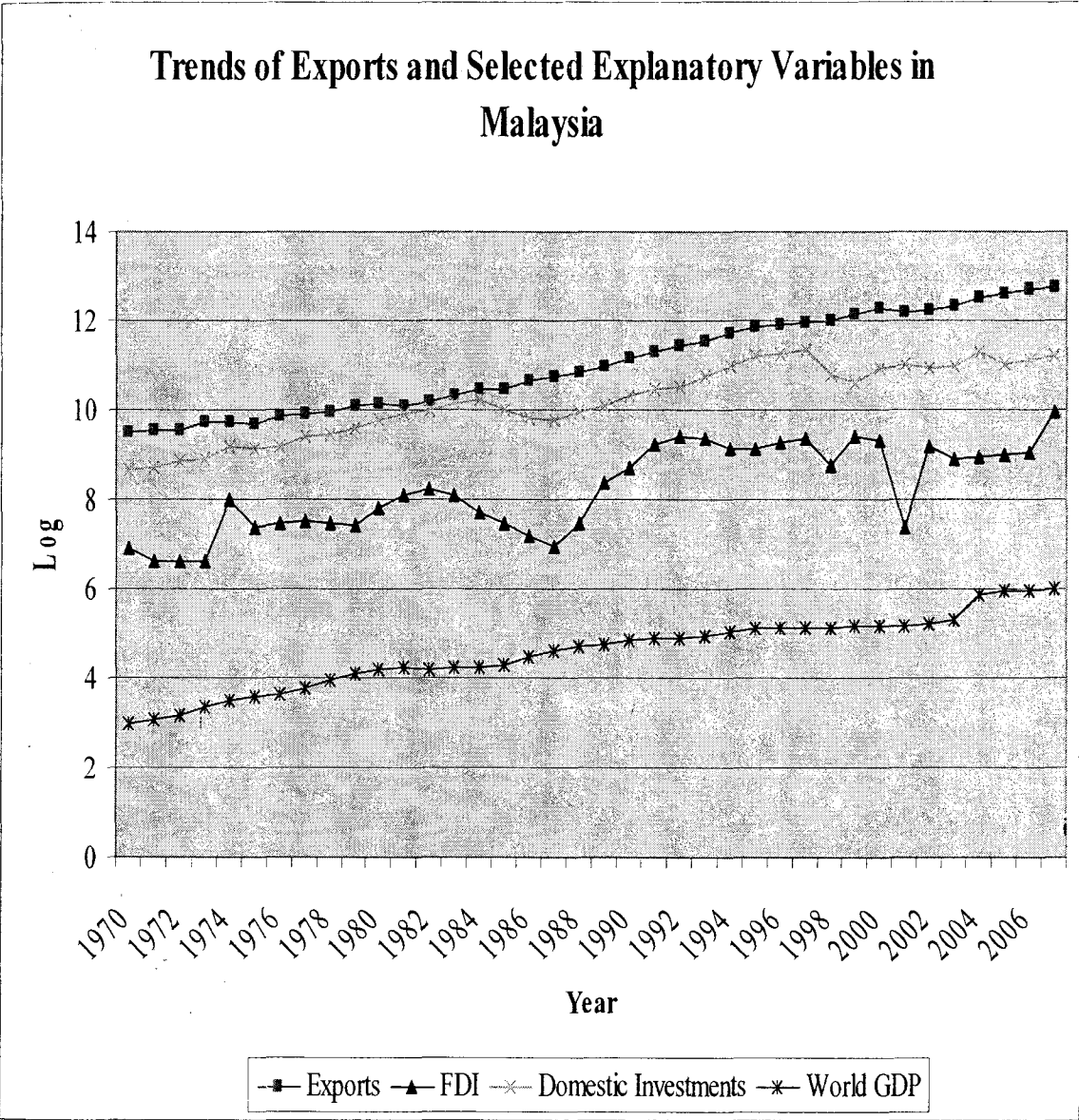


Figure 1.2: Trends of real gross exports, foreign direct investment, domestic investment, and world GDP.

Figure 1.2 shows the trends of exports, domestic investment, foreign direct investment and world GDP in Malaysia. The past performance of these variables shows an increasing trend.

It is evident from the graph that the export performance was encouraging. There was no apparent drastic drop in exports throughout the period under study. A check in the database confirms that exports were maintained even in the recessions of the mid-eighties and 1997-1998 Asian financial crisis. Exports did not fall in the latter period since the developed countries which were the main importers of Malaysian exports were unaffected by the crisis.

However, the same conclusion cannot be drawn in terms of FDI and domestic investment. It is clear from the figure that investors' confidence was affected by the two recessions. There was a drop in both FDI and domestic investment in 1985-86 and 1997-98.

World GDP in general, shows a positive upward trend throughout the period.

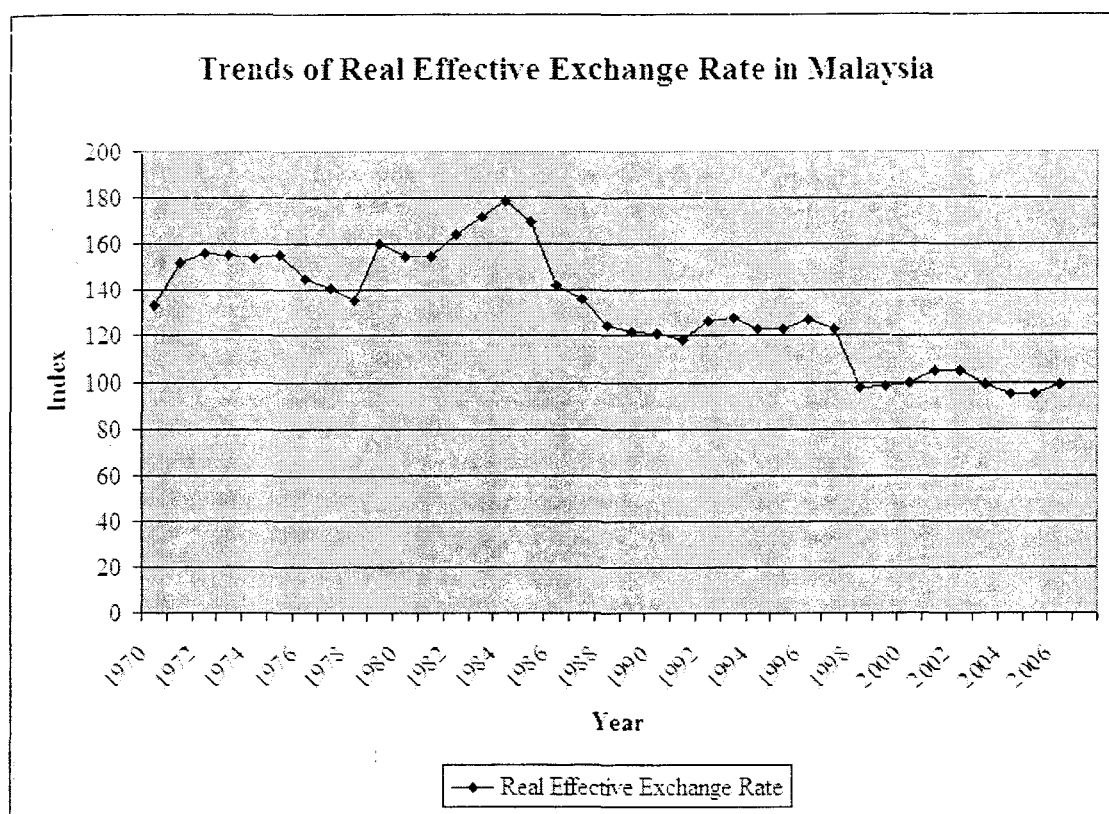


Figure 1.3: Trends of real effective exchange rate in Malaysia

The movement of the real effective exchange rate (year 2000 = 100) in Malaysia is illustrated in Figure 1.3. The real effective exchange rate (REER) is one of the vital variables that determine exports. The International Monetary Fund (IMF) defines the REER to reflect an increase as appreciation and a decrease as depreciation on the currency value of a country (discussed in greater detail in Section 3.4). From the figure, it appears that the index reached its peak (178.38) in 1984. Since then, the real effective exchange rate index has declined and it has been quite stable at the level of slightly exceeding 100 since 1998.

1.3 Problem Statement

As stated earlier, over the past few decades Malaysia's exports have grown much faster than GDP. The openness of the Malaysian economy has resulted in the growth rate of exports exceeding that of GDP.

It is believed that FDI is a major contributor to this phenomenon. However, despite its apparent importance there have not been many attempts to investigate the role of FDI on Malaysia's export performance. If the impact of FDI on export performance is of great magnitude and significance, it is then imperative that the country should implement measures to ensure foreign investors continue to choose Malaysia as destination for their investment despite intense competition of FDI from other countries in the region.

It is also recognized that external factors also determine the country's export performance. Export competitiveness depend on export pricing. In this respect, the real effective exchange rate (REER), in the absence of the export price index, is reflective of price. If REER is an important determinant, monetary policies can be implemented to influence REER and subsequently the level of exports. If Malaysia wishes to continue to rely on exports to generate economic growth, it is important to identify the factors that influence exports. Policies could then be devised and implemented to bring about positive changes in these factors that will result in significant increases in exports.

to the economic policy planners – in terms of providing them with input in their effort of charting a development strategy for future growth.

It is hoped that this study will make a contribution to literature on the role of FDI in generating exports particularly in developing countries. Export-led growth has always been a strategy used in Malaysia. Hence, sustaining export growth is unquestionably relevant and should remain a vital policy in the development of the Malaysian economy.

Thus far, there are not many significant researches on Malaysia in terms of the relationship between FDI and domestic investment with export growth.

In light of this, the choice of the present topic is timely for reasons of both practical significance and research considerations from Malaysia's perspective.

1.7 Organization Of The Remaining Chapters

This study consists of five chapters. Chapter 1 gives an overview of the study, which comprises of introduction and background of study. It also highlights the problem statement, the research questions to be answered, the research objectives as well as the significance of the study. Chapter 2 reviews the literature related to this study. The development of the theoretical framework and the hypotheses will be defined in this

chapter. Chapter 3 describes the methodology used for this research, while Chapter 4 covers the empirical findings and discussions. The study concludes in Chapter 5. The contributions and implications from the study are explained. The limitations of the study and recommendations for future research are also discussed.

CHAPTER 2

LITERATURE REVIEW

2.1 Introduction

The literature review is organized in accordance to respective areas of interest. The review covers literature on the separate impact on exports of each of the variables, namely, foreign direct investment, domestic investment, real effective exchange rate and world GDP. In view of the central role of foreign direct investment, the relationship between FDI and exports is given prominence, focusing on the relevance and importance of FDI's contribution towards exports in Malaysia. Finally, a theoretical framework and a set of hypotheses are developed.

2.2 Foreign Direct Investment (FDI)

According to Fukao, Ishido and Ito (2003), foreign direct investment (FDI) plays an important role in boosting export growth in East Asia. The key findings in their study is that FDI plays a significant role in the rapid increase in East Asian economic growth in recent years. The data used in their study covered the period from 1996 – 2000.

Xuan and Xing (2008) have also claimed that their empirical results demonstrate that FDI is one of the major factors in driving the rapid export growth of Vietnam. In their study on impact of FDI on exports in Vietnam, they revealed that FDI has substantially enhanced Vietnam's exports to its source countries of FDI. Their findings showed that a one percent increase in FDI can be expected to give rise to 0.13 percent increase in exports to the FDI source countries. They also noted that it is essential to have a accurate dataset which reflects actual FDI in order for evaluation to be done, in terms of the contribution and impact of FDI on the Vietnamese economy. Their study lent empirical support to the belief that FDI is a major contribution towards the export growth which subsequently will generate economic growth of a country.

Borensztein, De Gregorio and Lee (1998) suggested that FDI is also an important vehicle for technology transfer, contributing more to export growth than does domestic investment when the receiving country of FDI is able to absorb advanced technology sufficiently. In addition, Borensztein et al. (1998) demonstrated that FDI is more productive than domestic investment only when the country has a minimum threshold of human capital.

Njong (2008) found that FDI has a positive impact on export growth in Cameroon over the period 1980-2003. There was evidence that FDI inflows contributed to higher supply capacity and spillover effects leading to higher export growth.

growth of FDI to the growth of exports. More imports into China will lead to more inward FDI from the home country, which in turn will lead to more exports from China to the home country.

Li and Liu (2005) adopted a large cross-country sample for the period 1970-1999 in their study to investigate the impact of FDI on economic growth in both developed and developing countries. The research findings showed that there is a significant endogenous relationship between FDI and economic growth from the mid-eighties onwards. FDI and economic growth become significantly complementary to each other in both developed and developing countries.

The findings of Xu and Lu (2009) for China showed that export sophistication is positively related to the share of foreign owned enterprises from OECD countries, which consist of Australia, Austria, Belgium, Canada, Denmark, Finland, Germany, France, Greece, Iceland, Ireland, Italy, Luxembourg, Japan, The Netherlands, New Zealand, Norway, Portugal, Spain, Sweden, Switzerland, and United Kingdom.

Alguacil, Cuadros and Orts (2002) argued that most empirical work on the effects of outward-oriented policies in developing countries had identified openness with trade but it should involved more than just trade. Their study focused on analyzing the relationship among trade, foreign direct investment and domestic income in Mexico during the period 1980 to 1999. Their findings support the effectiveness of the outward-

looking orientation policy in Mexico. Besides, their results co
positive spillovers from FDI to output. The positive causal re'
exports suggests a kind of FDI-led export growth linkage and co
integration is being fostered by export orientation of foreign firms.

Hsiao and Hsiao (2006) examined the relationships between GDP, exports and FDI among the eight rapidly developing East and Southeast Asian economies (which consist of China, Korea, Taiwan, Hong Kong, Singapore, Malaysia, Philippines and Thailand) by applying times-series and panel data from 1986 to 2004. They found that the panel data causality results reveal that FDI has unidirectional effects on GDP directly and also indirectly through exports. This indicated that the panel data causality analysis yield superior results over the time-series causality analysis. The study reinforced the effects of FDI in addition to exports as an important engine of growth. Thus policies to attract inward FDI must be implemented.

Zhang and Song (2000) also supported that FDI plays an important role in promoting China's exports. They found a positive and strong linkage between exports and FDI. They also found that the coefficient on the variable of FDI is the most statistically significant. Thus, their findings support the widely held belief that increased levels of FDI positively affect provincial manufacturing export performance. The panel data at the provincial level in the period of 1986-1997 were used in their study. The paper thus found a strong link between exports and FDI.

Sharma's (2003) study on factors determining India's export performance showed that the foreign investment appears to have no statistically significant impact on export performance although its coefficient has a positive sign.

Except for Sharma's (2003) finding which is contradicts others, most of the findings conducted (Narayan et. al, 2010; Pfaffermayr, 2004; Reppas and Christopoulos, 2005; Yasar and Paul, 2007) are consistent. All providing evidence that FDI is one of the main forces influencing economic performance in the country.

An interesting point of view to ponder is whether the scenario which happened in India apply to Malaysia as well. Both countries are categorized as developing countries which have similar experience on export growth over the past few decades.

Does FDI play a critical role in export growth of Malaysia? Should our focus shift to other determinants if it is shown that FDI does not contribute effectively to export growth in Malaysia? It would be timely to re-examine the relationship between FDI and exports in Malaysia.

2.3 Domestic Investment

Ancharaz (2003) in his study on Mauritius, argued that domestic investment is equally important in terms of contributing to export growth. In his study, the positive sign

of the coefficient of the domestic capital stock variable indicates that domestic investment complements FDI in generating export growth.

Nevertheless, FDI was particularly crucial in the early stages of export development, contributing largely to economic growth. Subsequently, however, domestic investment caught up, and even surpassed FDI in affecting exports (Ancharaz 2003). This is a positive phenomenon that illustrates the capacity of domestic investors to learn and adapt foreign technology and use it for production. The Mauritian experience suggests that domestic and foreign investment complemented each other in sustaining the exports and economic growth.

Other studies produced similar results. Zhang and Song (2000), in their study on Chinese-owned firms, showed that the transfer of technology from multinational corporations to Chinese local firms gave rise to spillover effects and increased the local firms' export ability. As a consequence domestic investment also enhances the export performance.

The above literatures suggest that it is important to encourage both domestic investment and foreign investment to put Malaysia on a long-term high growth path. They demonstrated that domestic investment and FDI are equally important in promoting exports. In many cases, FDI has positive spillover effects on local firms, thus increasing their capacity to engage in export activities.

The findings of Lin, Liu and Zhang (2009) represent strong evidence that foreign direct investment has generated beneficial spillover effects to Chinese domestic firms in China. The findings also suggest that China's policy of opening up to FDI has indeed produced quantitatively measurable benefits. Lin et al. (2009) also gives robust findings that support forward spillovers from all types of FDI and the ownership type of domestic firms. However, vertical spillover effects from export-oriented FDI are weaker than those from domestic-market-oriented FDI. Thus, this translated that the increase of inflow FDI will indeed boost the domestic investment in country which eventually lead to export growth.

Greenaway, Sousa and Wakelin (2004) examined whether domestic firms learn to export from multinationals and the results of their findings confirmed positive spillover effects from domestic firms on the decision to export of UK-owned firms as well as on their export propensity. Their results provide a robust analysis of links between multinational enterprises (MNEs) and the export performance of domestic firms.

Guan and Ma (2003) in their study also showed that export growth is closely related to the total improvement of innovation capability dimensions, except for the manufacturing capability. They also found that the core innovation assets alone cannot lead to sustainable export growth and that productivity growth rate significantly increases or promotes export performance rates.