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Post-Crisis Investment Performance of ASEAN Countries: Impact of FDI

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Abstract

The paper studies the post-Asian crisis investment performance of crisis affected countries in ASEAN. The empirical evidence clearly indicates that the ASEAN and East Asian countries are emerging from the Asian crisis with strong output growth. As expected, the output growth seems to be driven by the growth in export sector. The growth in the post-crisis period indicates that it is reaching the level similar to that of the pre-crisis. However, the paper highlights that the output growth in the post crisis period is also observed with rising unemployment rate, growth government deficit, and declining FDI inflows into the South-East Asian region. The empirical evidence also indicates that there is a fundamental shift in the industrial structure of the South-East after the Asian crisis. This directly raises the issue of sustainability of the output growth in the post-crisis period.

Introduction

The East Asian financial crisis was a period of economic recession initially spurred in Thailand in July 1997, and adversely affected currencies as well as stock markets and other asset prices in several Asian countries. The East Asian currency and financial crises radically transformed international perceptions and opinion about the East Asian growth experiences. Indonesia, South Korea and Thailand were the countries most affected by the crisis. Hong Kong, Malaysia, Laos and the Philippines were also greatly suffered, whereas Mainland China, Taiwan, Singapore and Vietnam were relatively unaffected by the initial wave of the crisis. Though Japan was not significantly affected by the crisis, it was dragged down in by its long-run economic downturn. The aftermath of the crisis is the drastic fall in the output growth of the affected countries.

The impact of the crisis affected the Asian countries in number of ways. Among other things, it involved a drastic decline in the private external capital flows to the region. The region experienced a drastic decline in net private foreign bank lending and portfolio equity investment, which was estimated to have turn negative in 1997 for the crisis affected countries of Indonesia, Korea, Malaysia, Philippines and Thailand (World Investment Report, 1998). Although we observed short-term capital flight out of the region, the foreign direct investment (FDI) inflows in the Asian region remained fairly stable during the same period. In fact, the FDI inflows in 1997 in the five major affected crisis countries of Korea, Malaysia, Philippines, Indonesia and Thailand remained at the level similar to that of 1996 (World Investment Report, 1998).

Given that FDI is primarily driven by different fundamentals from short-term capital, it was not surprising that FDI remained stable during the Asian crisis. FDI involves not only financial capital, but also by other components such as technological, organizational and intellectual capital, and motivated by strategic economic interest such as markets, resources, in creating assets and enhancing efficiencies. Further, given the huge sunk cost of multinational activities in terms of infrastructure and human capital developments, FDIs are not very mobile and footloose as the short-term capital. Although FDI might be more stable than short-term capital, multinational activities are not insensitive to economic crisis, in particular to the changes in the incentives to investment induced by the economic crisis. In the medium to long-term there could be changes to the investment strategies of multinational corporations, if there are significant changes to the investment fundamentals in the region or particular economy from an economic crisis. According to UNCTAD, there was a fall in FDI in 1998 in the developing Asia and Pacific region by US$38 million from the previous year. The current paper examines the post crisis investment performance of the crisis affected countries of ASEAN such as Indonesia, Malaysia, Philippines, Singapore, Thailand and Vietnam.

In an open economy, one key factor with a potential impact on the productive performance of the domestic industries is the flow of foreign direct investment into the economy. The production activities of the multinational corporations could have significant impacts on the operational structure of the domestic industries in terms of (a) greater competition, (b) new capital inflow, (b) diffusion of new ideas and technologies, and (c) transfers of important managerial skills and marketing networks;

and thus creates various productive spillovers [2] onto the domestic industries (Blomstrom and Kikko, 1998; Moody, 2004). The ASEAN countries rely heavily on the multinational corporations to maintain its competitiveness and economic growth in the global economy. For instance, ASEAN countries have effectively used FDI to augment its domestic capital and drive their industrial strategies. FDI has been a key factor driving export-led growth in Southeast-Asia and in particular the growth of the electronic sector could be directly attributed to the role of multinational corporations. Thus it is pertinent to examine if there is any induced changes from the Asian crisis on the incentives to invest in the region.

In section 1, the key macroeconomic trends for the selected ASEAN countries are given. Section 2 discusses the FDI trends in the ASEAN countries. In section 3, we examine the post-crisis performance of the selected Asian countries in a panel data framework. The policy implications and conclusion are given in Section 4.

Key Macroeconomic Indicators for Selected ASEAN Countries

1. Strong Post-Crisis Economic Growth

Since the Asian crisis in 1997, the ASEAN countries have faced very volatile output growth due to such events as the Asian financial crisis, the slowdown in the US and global economies, SARS, and the on-going war on terrorism. However, the ASEAN countries are emerging stronger and more resilient to the external shocks. The direct impact of the Asian crisis is the drastic fall in the output growth in most of the Asian countries. Except for China, Taiwan, and Vietnam, the other Asian countries have experienced a negative growth rate in 1998 (see Table 1). However, post-crisis period

[2] See Blomstrom and Kikko (1998) on the survey of multinational corporations and productive spillovers. Productive spillovers occur when multinational corporations are not able to internalize the benefits that are derived by the local firms through the multinational operations.

indicates that the crisis affecting countries are emerging stronger and their growth rates are converging to the level similar to that of the pre-crisis level. The average growth rate among the ASEAN countries of Indonesia, Malaysia, Singapore, Philippines and Thailand is increasing to nearly 4% in the post-crisis period of 1999-2005, as compared to 6.7% in 1995-1997 (see Table 2). Given the number of external shocks that was experienced during the 1999-2005 period, the strong positive growth rate does reflect that the crisis affecting economies might be structurally adjusting to more efficient and competitive equilibrium to maintain their competitiveness in the global economy. In fact, Hong Kong and Thailand are averaging an annual growth rate of nearly 4.9% and 5.1% respectively in 1999-2005, which is relatively higher as compared to 4.6% and 4.4% in the pre-crisis period of 1995-1997.

Table 1: Real GDP Growth Rate for Selected Asian Countries from 1995 – 2005

	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
China	10.5	9.6	8.8	7.8	7.1	8.0	7.5	8.3	9.5	9.5	9.9
Indonesia	8.2	7.8	4.7	-13.1	0.8	4.9	3.8	4.4	4.7	5.1	5.6
Korea	9.2	7.0	4.7	-6.9	9.5	8.5	3.8	7.0	3.1	4.7	4.0
Malaysia	9.8	10.0	7.3	-7.4	6.1	8.9	0.3	4.4	5.4	7.1	5.3
Philippines	4.7	5.9	5.2	-0.6	3.4	4.4	1.8	4.5	4.5	6.0	5.1
Taiwan	6.5	6.3	6.6	4.5	5.7	5.8	-2.2	4.2	3.4	6.1	4.1
Thailand	9.2	5.9	-1.4	-10.5	4.4	4.8	2.2	5.3	7.0	6.2	4.5
Singapore	8.1	7.8	8.3	-1.4	7.2	10.0	-2.3	4.0	2.9	8.7	6.4
Vietnam	9.5	9.3	8.2	5.8	4.8	6.8	6.9	7.1	7.3	7.8	8.4
Hong Kong	3.9	4.2	5.1	-5.5	4.0	10.0	0.6	1.8	3.2	8.6	7.3

Source: Asian Development Bank

Table 2: Average Real GDP Growth Rate for Selected Asian Countries

	1995-1997	1999-2005
China	9.6	8.5
Indonesia	6.9	4.2
Korea	7.0	5.8
Malaysia	9.1	5.4
Philippines	5.2	4.2
Taiwan	6.5	3.9
Thailand	4.6	4.9
Singapore	8.1	5.3
Vietnam	9.0	7.0
Hong Kong	4.4	5.1

Source: Asian Development Bank

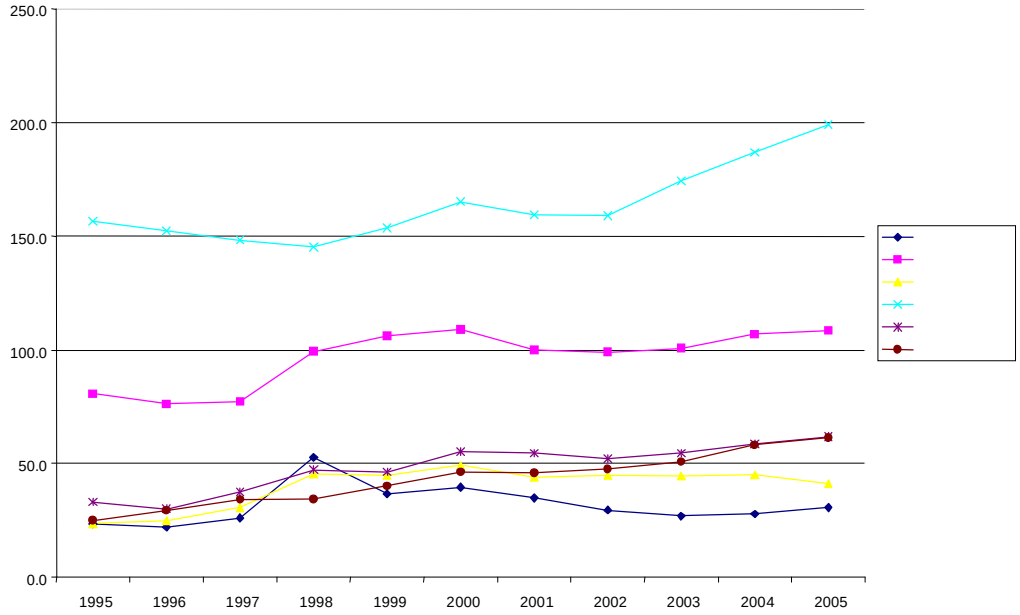
The strong GDP growth by the Asian countries is also supported by strong export growth in the post-crisis period. In Table 3, it is clear that the external shocks such as the Asian crisis and 2001, September 11, terrorist attack have negatively affected the export growth of the region. However, the export growth is emerging stronger and levelling to that of the pre-crisis level thereafter. The importance of export for the economic growth for the Southeast-Asian countries is also reflected by the high export to GDP ratio in Figure 1. In fact, the export to GDP ratio is rising for most of the countries under study after the Asian crisis. For instance, export to GDP ratio for Singapore and Malaysia increased from 80% and 150% in 1995 to nearly 150% and 200% respectively in 2005, thereby reflecting the heavily reliance of both countries on export growth. The importance of export for output growth is also emerging for Indonesia, Philippines and Thailand, where the export to GDP ratio increased to 30%, 40% and 61% in 2005 from 23%, 23% and 33% respectively in 1995.

Table 3: Export Growth for Selected Asian Countries

	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
China	23.0	1.5	21.0	0.5	6.1	27.8	6.8	22.4	34.6	35.4	28.4
Indonesia	13.4	9.7	7.3	-8.6	-0.4	27.7	-9.3	1.5	6.8	17.2	8.3
Korea	30.3	3.7	5.0	-2.8	8.6	19.9	-12.7	8.0	19.3	31.0	12.0
Malaysia	20.2	6.5	12.1	29.7	12.2	16.1	-10.4	6.9	11.3	20.8	11.0
Philippines	29.4	17.8	22.8	16.9	18.8	8.7	-15.6	9.5	2.9	9.5	4.0
Taiwan	20.1	7.7	9.6	6.1	6.1	17.8	-10.4	8.9	9.9	17.5	4.6
Thailand	23.6	0.4	27.9	24.4	-1.4	25.2	4.0	1.4	13.7	16.5	14.5
Singapore	13.7	5.2	5.3	-1.0	5.7	22.4	-8.3	2.7	11.6	20.5	14.0
Vietnam	34.4	33.2	26.6	1.9	23.3	25.5	3.8	11.2	20.6	31.5	21.6
Hong Kong	14.9	4.0	4.2	-7.4	0.1	16.6	-5.8	5.4	11.7	15.9	11.4

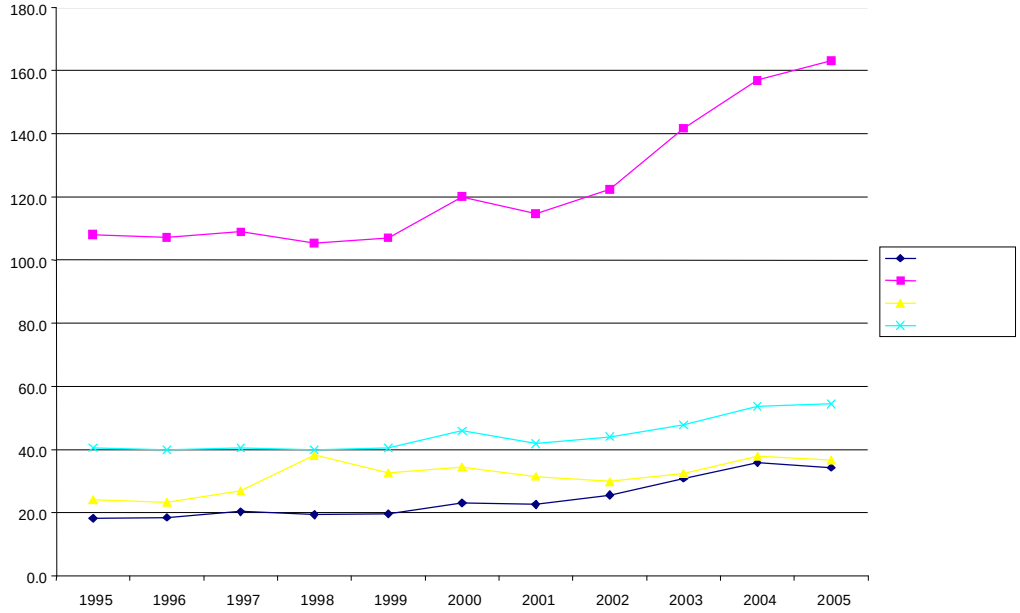
Source: Asian Development Bank

Figure 1: Export to GDP Ratio for South East Asian: 1995-2005



Source: Asian Development Bank

Figure 2: Export to GDP Ratio for East Asian (1995-2005)



Source: Asian Development Bank

Figure 2 also clearly reflects export growth is becoming an important component of growth for the East Asian countries. The export to GDP ratio for China is rising from 20% in 1995 to nearly 40% in 2005. The most significant increase is observable for Hong Kong, where the export to GDP ratio has increased from nearly 100% in 1995 to 160% in 2005, which is roughly equal to that of the other City-State, Singapore. Both Korea and Taiwan were also experiencing an increase in their export to GDP ratio, increasing to nearly 60% and 40% respectively in 2005.

2. High Post Crisis Growth with Growing Budget Deficit and Unemployment

Although there is a strong GDP growth in the post-crisis period, it is also characterized by rising budget deficits and rising unemployment rate in the Asian countries. The government budget to GDP ratio is given in Table 4 for selected Asian countries and it clearly shows the rising budget deficits in 1999-2005 as compared to the pre-crisis period of 1992-1997. Most of the ASEAN countries have deficit budget positions in post-crisis period as compared to the pre-crisis period of 1992-1997. Malaysia and Philippines are two key ASEAN countries that have turned their budget surpluses in 1992-1997 to more than 4% deficit to GDP ratio in 1998-2005. Although Singapore is one of the ASEAN countries that are known for maintaining its budget surpluses for most of the years, its budget surplus position has also been significantly fallen in 1999-2005. Given the number of external shocks that Asian countries have experienced in 1997-2005, it is not surprising to observe that the respective governments in the Asian countries are moving to more counter-cyclical fiscal policies.

Table 4: Key Macroeconomic Indicators for Selected Asian Countries (1992-2005)

	Budget Surplus (- Deficit) to GDP		Unemployment Rate		Inflation Rate	
	1992-1997	1999-2005	1992-1997	1999-2005	1992-1997	1999-2005
China	-2.0	-2.5	2.8	3.8	12.2	0.8
Indonesia	0.5	-1.6	4.5	8.5	8.9	10.1
Korea	-0.1	0.8	2.4	4.1	6.5	1.7
Malaysia	0.9	-4.8	3.0	3.4	3.5	2.9
Philippines	-0.1	-4.1	8.3	10.1	7.7	5.9
Taiwan	-2.5	-2.9	2.0	4.2	2.6	-1.1
Thailand	1.6	-1.5	1.2	2.0	4.4	1.4
Singapore	13.5	5.4	1.7	3.2	2.2	-0.1
Vietnam	-1.8	-2.5	4.5	2.6	16.5	5.4
Hong Kong	2.3	-2.0	2.4	6.3	6.5	-3.8

Source: Asian Development Bank

In line with rising budget deficits in the Asian countries, we are also observing rising unemployment rate in the post-crisis period. Except for Vietnam, the unemployment rate in all the selected Asian countries have increase and it has increased two-fold in 1999-2005 as compared to pre-crisis period of 1992-1997. In particular, the unemployment rate is more than 6% in Indonesia, Philippines and Hong Kong. It is well known that the unemployment rate was as low as that of the natural rate in the East Asian countries of Korea, Singapore and Taiwan during the period of strong growth in 1990s, which was driven by strong manufacturing sector. However, in the post-crisis period, it has increased to nearly 4% across most countries even with strong GDP growth, thereby suggesting a possibility of structurally unemployed labour force in these countries. As compared to unemployment, the inflation rate is falling for all the selected countries except for Indonesia, which has marginally increased in 1999-2005.

Post Crisis Investment in ASEAN

3. Post Crisis FDI Inflows into Asia: Declining FDI Shares

Southeast Asia countries, together with East Asia countries and other emerging markets, have experienced overwhelming increases in private capital flows during early 1990s. Net private capital flows, compared with an annual average of less the US$10 billion in the latter half of 1980s, had been skyrocketing to US$ 200 billion in the aforementioned period.[3] Among those, Korea, Malaysia, Thailand, and Indonesia are the largest hosts in term of receiving more than US$15 billion in net long-term private capital flows.

The FDI inflows in the key ASEAN countries are given Table 5. The Asian crisis has a drastic impact on the flow of FDI into the ASEAN countries and Indonesia seems to have experienced a significant decline in its FDI inflows. In fact, the other ASEAN countries have also experienced a drastic fall in their FDI inflows in 1998, but we do observe a reversal in the FDI flow in 1999-2000. However, as compared to output and export growth, the post-crisis total FDI inflows to ASEAN have not improved to the pre-crisis level and it is showing a declining trend.

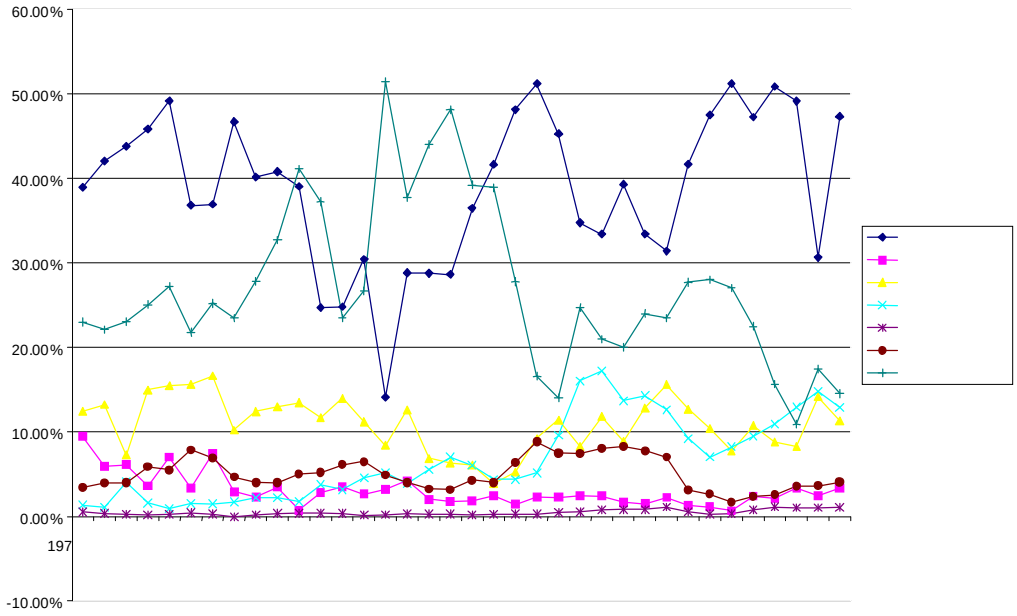
Table 5: FDI Inflows into ASEAN by Host Country, 1997-2003 (US$ million)

Year	1997	1998	1999	2000	2001	2002	2003
Indonesia	4,678	-356	-2,745	-4,550	-3,279	145	-596
Malaysia	6,323	2,714	3,895	3,788	554	3,203	2,473
Philippines	1,261	1,718	1,725	1,345	982	1,111	319
Singapore	13,533	7,594	16,067	17,218	15,038	5,730	11,431
Thailand	3,882	7,491	6,091	3,350	3,886	947	1,869
Vietnam	2,587	1,700	1,484	1,289	1,300	1,200	1,450
Total FDI Inflows in ASEAN	34,099	22,406	27,853	23,379	19,373	13,733	20,304

Source: ASEAN Secretariat, ASEAN Statistical Yearbook 2004.

[3] Data are retrieved from International Financial Statistics, IMF.

Figure 3: FDI Inflows to World Total FDI Inflows (1970-2005)



Average FDI to World FDI Inflows (%)

	1992-1997	1999-2005
Europe	36.25%	46.27%
Africa	2.08%	2.20%
Latin America	11.46%	10.20%
East Asia	13.90%	10.90%
South Asia	0.74%	0.81%
South-East Asia	7.66%	2.92%
North America	21.19%	19.43%

Source: UNCTAD

The declining trend of FDI inflows to South-East Asia is clearly observed in terms of the total World FDI (see Figure 3 and Tables 6). As given in Figure 3, Europe is the main destination for multinational activities with nearly 36% of the total World FDI in 1992-1997 and this share has increased to 46% in 1999-2005. Although, we observe marginal decline in share of total World FDI to the other regions (1%-2% decline) in 1999-2005, the share of total World FDI to South-East Asia has drastically

declined to nearly 3% to that of Africa, which is close to the share of 2.2% for the same period (Africa showing a marginal increase in 1999-2005 as compared to 1992-1995).

As discussed earlier, the pre-crisis era is mainly characterized by incessant increases in net FDI inflows in all Asia regions, especially in ASEAN. Many factors have been invoked to account for this historically unprecedented expansion of net FDI inflows, ranging from the role of the level of economic development and the intra-regional networks in Asia. Most importantly, these emerging markets were ready and willing to accept the investment flows when Transnational Corporations (TNCs) in developed Worlds were disrupted by recession during 1970s and heading towards the developing countries. Initially, the goal of inter-regional relocation of production is to seek cheap labor in emerging markets, especially in ASEAN, where skilled labor resources, large national and regional markets, and fundamental infrastructures have been well endowed. As shown in Figure 3, the immediate impact of financial crisis in 1997 is not apparent and this might be due to the fact that the nature of FDI, as opposed to 'footloose' portfolio investment, is long-term. Despite comparatively stable net FDI in flows in South Asia, this impact has become more obvious in late 1998 with a sharp decline in net FDI flows in East and Southeast Asia. Another interesting net FDI trend is inter-regional FDI flows from Southeast Asia to East Asia in late 1990s, as the downward trend of net FDI flows in Southeast region corresponds by upward trend in East Asia.

To see this more clearly, Figure 5 portrays disaggregated net FDI flows into East Asia. Apparently, in late 1990s "Newly Industrialized Asian Economies" (NIAEs), including Hong Kong, South Korea, and Taiwan seem to play less important role, compared to that of China. It is also apparent from Figure 5 that, following

financial crisis 1997, net FDI flows in these NIAEs have become more fluctuating around low trends. This might be explained by integrated international capital market in the new century. Despite an infinitesimal decline in net FDI inflows in China in 1999, Figure 5 clearly reveals a steady upward trend of net FDI inflow into China, which was almost doubled from US$ 33 billion in 1994 to US$ 56 billion in 2004. As Chinese economy started to open up, TNCs found investment in promisingly large market with large pool of cheap labor profitable.

Table 6: Average FDI Flows to Total World FDI Inflows: 1992-2005 (%)

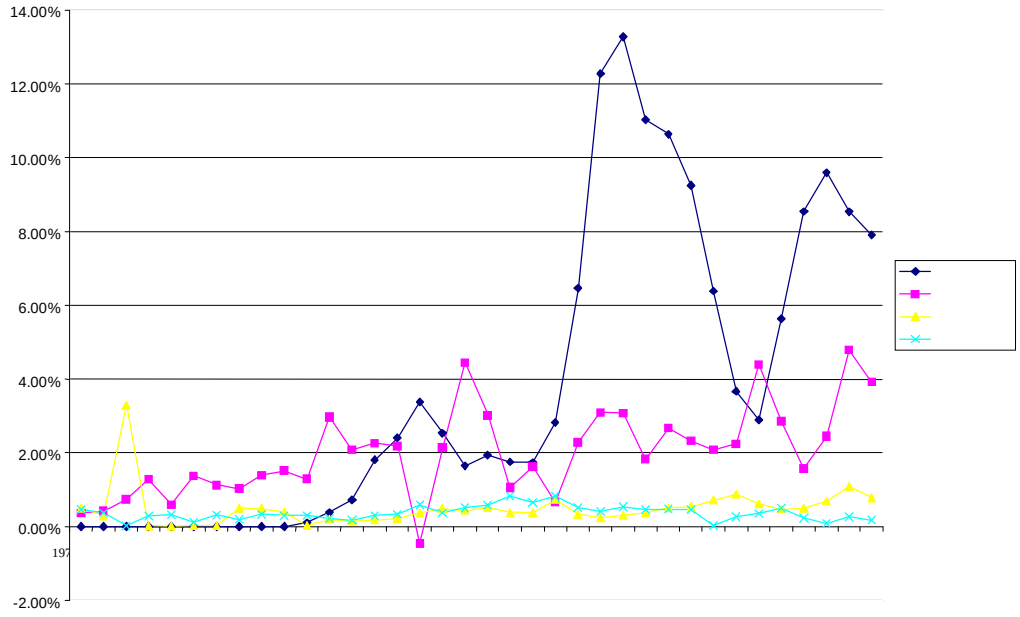
	1992-1997	1999-2005
China	10.49	6.64
Hong Kong	2.54	3.03
Korea	0.38	0.72
Taiwan	0.48	0.24
India	0.46	0.59
Indonesia	1.10	-0.02
Malaysia	2.04	0.39
Philippines	0.45	0.14
Singapore	2.57	1.61
Thailand	0.77	0.43
Vietnam	0.49	0.19

Source: UNCTAD

Out of the 11 Asian countries given in Table 6, China seems to have received nearly 10% of the total World FDI in1992-1997. In the same period, the City-States of Hong Kong and Singapore have captured nearly 2.5% of total World FDI. In the post-crisis of 1998-2005, period, the share of total World FDI to China has declined to nearly 6.5%. This decline in the share is also observable in other Asian countries except for Korea, India and Hong Kong. Among the ASEAN countries, Singapore was still receiving the largest share of total World FDI inflows of 1.6% in 1999-2005, but it is important to note that the share has declined significantly from the pre-crisis

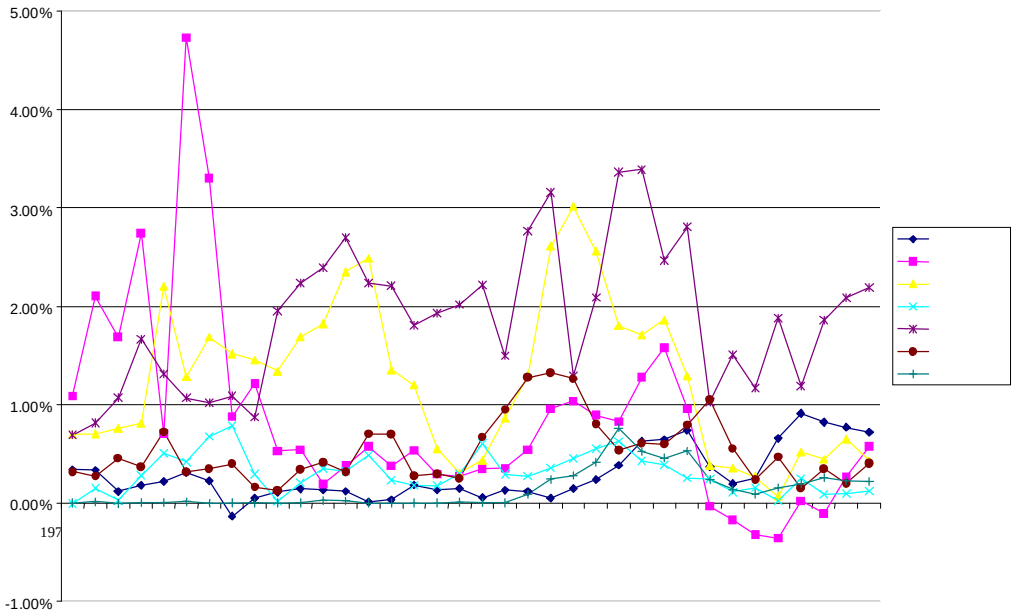
period of nearly 2.6%. Malaysia, Philippines and Indonesia have also experienced a drastic decline in their share of total World FDI inflows in the post-crisis period, as Malaysia has experienced a significant decline of nearly 1.5% in 1999-2005 as compared to the pre-crisis period.

Figure 4: East Asia FDI Flows to Total World FDI Flows (%)



Source: UNCTAD

Figure 5: South East Asia and India FDI/ Flows to Total World FDI (%)



Source: UNCTAD

The shares of FDI inflows to GDP ratio are given in Table 7 for the selected Asian countries. Hong Kong, Korea, India and Singapore are the only Asian countries that have experienced higher FDI to GDP ratio in the post-crisis period, with Hong Kong and Korea experiencing a three-fold increase in the FDI to GDP ratio in 2002-2005 as compared to 1992-1997. Among the ASEAN countries, Singapore has the highest share of FDI to GDP ratio of nearly 13% in 2002-2005, thereby indicating the importance of foreign direct investment for their economic growth. As compared to the pre-crisis period, Malaysia and Indonesia have experienced the significant decline in its FDI to GDP ratio indicating FDI might be contributing less to their economic activities.

Table 7: FDI/GDP Ratio for Selected Asian Countries (1992-2005)			
	1992-1997	1998-2001	2002-2005
China	4.76	3.94	3.71
Hong Kong	5.53	22.45	13.91
Korea	0.27	1.55	0.81
Taiwan	0.57	1.36	0.44
India	0.45	0.79	0.88
Indonesia	1.80	-2.15	0.64
Malaysia	7.25	3.25	3.18
Philippines	1.92	1.62	1.15
Singapore	10.54	18.71	12.61
Thailand	1.57	3.69	1.29
Viet Nam	8.22	4.43	3.65

Source: UNCTAD

4. Post Crisis and Intra-ASEAN Investment

Which sectors are affected from a decline in net FDI flows in ASEAN? To answer this question, we have to focus on more disaggregated data series on net FDI inflows. As represented in Table A1-6 in the Appendix, the net FDI flows categorized by economic sectors in 6 host countries, including Indonesia, Malaysia, Philippines, Singapore, Thailand, and Vietnam. The sources of FDI inflows show that manufacturing sector is the most affected by net FDI flows. The decline in the net foreign investment is more evident from the sectoral FDI inflow Tables given in the Appendix. Besides, our data also reveal that the sources of FDI flows are emanated mainly from "triad" economies, namely Japan, the United States, and European Union. In Indonesia, as the net investment from US declines, there has been an increase in net investments from Europe, Japan and ASEAN. In particular, we do see greater investment in manufacturing sector from Europe and in the financial sector from ASEAN. As in Indonesia, the drastic decline in net foreign investment in the manufacturing is also apparent in Thailand, Philippines and Singapore. In particular,

Philippines and Malaysia have experienced a significant decline in the overall foreign investments in most sectors in the post-crisis period, but there are signs of improvement in the manufacturing investments from the 3 major developed countries of Japan, US and Europe in Malaysia in 2003.

We also observe greater ASEAN intra-regional FDI inflows in the post-crisis period. Except for Singapore which is regarded as an investing country, one apparent and important trend of net FDI flows in this region is that intra-regional sources play an increasing important role during post-crisis era. Specifically, as shown in the Tables, Indonesia, Malaysia, Philippines, Thailand, and Vietnam relied more on FDI from ASEAN countries. This might suggest that in fact Transnational Corporations (TNCs) were more stable and driven by fundamental forces of the host economy (Mirza et. al, 1997). Our evidence shows that ASEAN's best strategy to attract non-ASEAN FDI in ASEAN is to facilitate intra-ASEAN FDI. This clearly makes economic sense and can be explained by a number of reasons. First, ASEAN in era of globalization is a region which has to compete with other emerging markets, including Mercosur, "Greater China" and India. It therefore needs to stress its critical mass as a community of closely co-operating economies as opposed to a club of individual and individualistic nation states. Secondly, ASEAN is maturing and represents a growing market to which MNCs are responding, often by taking advantage of the regional division of labour. This is a natural process that needs to be encouraged. Lastly, as ASEAN matures, so do its home-grown TNCs which, apart from also pursuing a regional division of labour, are potential targets or partners for non- ASEAN MNCs or their subsidiaries in the region.

5. Empirical Model: Impact of FDI and Export on Economic Growth

The casual observation from the above data indicates that the ASEAN countries might be able to maintain high output growth in the post-crisis period, even with low FDI investments in the region. We adopt a panel growth regression framework as suggested by Reichert and Weinhold (2001) to study the impact of FDI and export on economic growth. Based on their framework, we define the following equation:

$$GY_{it} = a_i + b_1 GGDCF_{i,t-1} + b_2 GFDI_{i,t-1} + b_3 GEXP_{i,t-1} + b_4 GLTDebt_{i,t} + b_5 GSTDebt_{i,t} + b_5 Unemp_{i,t} + b_6 Infla_{i,t} + b_7 AsianCrisis + b_8 PostAsian + e_{it}$$

Eq (1)

where i = countries and t = years (1988 – 2005).

The real GDP growth rate of the ASEAN countries is given as GY_{it}. The key components of output growth are given by the growth rate of gross domestic fixed capital formation to GDP ($GGDCF_{i,t-1}$), growth rate of FDI inflows to GDP ($GFDI_{i,t}$) and growth rate of exports to GDP ($GEXP_{i,t-1}$). Given that the deficit fiscal position of the ASEAN countries is rising over time, we included the long-term government debt to total ($GLDebt_{i,t}$) and short-term government debt to total debt ($STDebt_{it}$) to study the impact of the fiscal position of the ASEAN countries in our analysis. The other 2 key macro variables that might have significant impact on output growth is the unemployment rate ($Unemp_{i,t}$) and inflation rate ($Infla_{i,t}$). The post crisis period is reflected by rising output growth with higher unemployment, which tends to indicate the possibility of structural unemployment developing in the ASEAN countries. The inflation rate is included to understand the stable macro economic fundamentals in the

economy. Further, the changes in the inflation rate could also indicate the competitive position of the ASEAN countries through their export growth. We also control specifically for the Asian crisis through export and FDI dummy variables, which is expected to indicate if the negative impact is felt through export or FDI. Finally, given that there is a significant decline in FDI inflows in the post Asian crisis, we included a dummy variable ($Post\ Asian_{i,t}$) to capture the post crisis effects of the structural changes in the ASEAN economy All the variables were obtained from the Asian Development Bank database and it covers a time span from 1988 to 2005. The FDI inflow data is obtained from UNCTAD database. We included 5 ASEAN and 4 East Asian countries in the study: Indonesia, Korea, Malaysia, Philippines, Taiwan, Hong Kong, Singapore, Taiwan, and Vietnam.

The results of the regression are given in Table A7 in the Appendix 2. The results clearly indicate the importance in the growth rate of export and FDI on the overall economic growth in the region. Both variables were statistically significant and as expected the export growth tends to have a greater impact on output growth, although it is only statistically significant at 10% level. Given the number of free trade agreements that was signed over the past decade in the region, it is not surprising to see the resurgence of export growth in the region. As compared to domestic investment, foreign direct investments have strong positive and statistically significant impact on the output growth in the region. Although the deficit fiscal position of the ASEAN countries might not have any impact on output growth, the long-term debt position of the economies has strong negative impact on the output growth in the region. The status of the fiscal position through the macroeconomic conditions such as inflation rate seems to be very important for the region.

The question of the impact of the Asian crisis on export growth and flow of FDI into the region are indicated by the sign of the dummy variables on export and FDI inflows. As compared to FDI inflows, the effect of the Asian crisis on output growth through export growth is not statistically significant. It is very clear from the results that the decline in FDI from the crisis had significant negative impact on the output growth of the region. In fact, the decline in FDI might have induced further structural shifts in the fundamentals in the economies in the region and hence the output growth in the region. This could be verified by the post crisis dummy, indicating a negative and statistically significant coefficient, thereby indicating an overall structural shift in the post crisis period leading to a significant decline in the output growth in the region.

Policy Implications and Conclusion

The empirical evidence is very clear that the ASEAN and East Asian countries are emerging from the Asian crisis with strong output growth. As expected, the output growth seems to be driven by the growth in export sector. The growth in the post-crisis period tends to indicate that it is reaching the level similar to that of the pre-crisis. However, as indicated in the paper, the output growth in the post crisis period is also observed with rising unemployment rate, growth government deficit, and declining FDI inflows into the South-East Asian region. The empirical evidence also indicates that there is a fundamental shift in the structure of the South-East after the Asian crisis. This directly raises the issue of sustainability of the output growth in the post-crisis period.

Further, the empirical analysis clearly indicates the importance of both FDI and export for the regional growth. Evidence suggests that multination corporations

and domestic firms affiliated with multinational activities tend to be more competitive in the global economy, and hence they are more actively involved and drive export growth in the economy (Caves, 1996; Thangavelu and Owyong, 2003). In fact, our empirical result suggests that FDI tends to have more impact on output growth than domestic fixed capital formation. Again, this is not surprising as there is a lack of capability to develop indigenous technology or R&D in the region and these countries are still heavily dependent on foreign technology and spillovers from multinational activities.

Given the importance of FDI for regional growth, the declining share of FDI to the South-East Asian region raises several important concerns. The most immediate question is whether we need large flow of FDI to maintain the economic growth in the region. To answer this question, it is important to understand the changing role of global multinational activities and the alignment of domestic absorptive capacity to take advantage of the changing global landscape.

Multinational corporations are in constant search for opportunities to build up their own competitiveness internationally. In a globalizing world, which is driven by technological changes, the transition of the activities of the firms via value chain is necessary. Moreover, within a globally integrated production system which involves intra-firm division of labor and value added, it is possible for any part of the chain of an enterprise to remain fully integrated in the same corporate network while being located abroad. Thus domestic infrastructures and indigenous firms must align their human capital and technologies so as to provide the necessary linkages to the global network to move up the value-chain seamlessly with the multinational corporations. The ability to align with the global activities is not just purely the activity of the firms, but also includes growing government investment in the improvement of physical

infrastructure and education to develop human capital. Recent evidence suggests that the high flow of FDI into developed countries such as Europe and US is mainly due to the strong fundamentals in technology, infrastructure and human capital in the developed countries (Lipsey and Feliciano, 2002; Balasubramanyam et. al., 1999, 1996). Further, study by Smarzynaka and Wei (2002) highlights that strong institutions that clearly define the property rights that enables the efficient operations of the financial markets and with high intellectual property content tends to attract high quality foreign investments in knowledge and technology. High quality foreign direct investments have greater impact on output growth if the domestic capacity could complement the foreign technology of the multinational corporations.

One of globalization's key drivers is foreign direct investment (FDI), and its impact on host countries is also a point of much debate. The nature of FDI is such that it involves a resident entity in the host country to have its effective management control in the hands of an enterprise resident of another nation; therefore FDI has corporate governance implications. Moreover, FDI has been viewed in certain situations as encroaching on the sovereignty of a host country through a foreign control over resources, especially where natural resources are involved, and also as a possible danger to the promotion of domestic investment. Besides being questioned as a threat to national security and accused of undermining national industries, FDI has also been important vehicle that promotes economic development.

In reality, to identify legitimate competition and crowding out effects of multinational corporations, it is important to effectively define the policy for regulation of foreign entry and allowing efficient competition in the domestic economy. For instance, improved accountant standards and globally best practiced standards for corporate governance are definitely the right directions for attracting and

regulating foreign competition. FDI policies must also counter coordination and information failures in the investment process, as well as the divergence between national interests and TNCs' private interests.

Besides balancing the levels of FDI and domestic investment, the government should also seek to promote synergy between foreign and domestic investments, through the encouragement of cooperative efforts and creating and deepening linkages between multinational corporations and local firms. Furthermore, governments hoping to attract FDI should also hold the task of creating skilled technical manpower that is tailored to the activities that are nationally desirable, as well as encouraging the vibrancy and technological dynamism of the domestic enterprise sector, such that benefits from FDI can be maximized. Reservation against FDI has, albeit not entirely, given way to national governments' active promotion of FDI in the hopes driving economic progress. Mindsets have evolved and are recognizing that the benefits from FDI may outweigh the cost of relinquishing parts of or all of domestic management control and ownership in some sectors under some circumstances. Some developing countries do not have the necessary capabilities and national savings to experience economic growth that is sustainable, and thus do not have the choice of rejecting FDI. In the new global setting of technology and competition, the pursuit of traditional inward-looking strategies centering on the public sector is not the best choice available.

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Appendix 1

Table A1: FDI FLOWS TO VIETNAM BY ECONOMIC SECTORS AND REGIONAL BLOCS OF COUNTRIES (US$ million)

ECONOMIC SECTOR		SOURCE COUNTRY	Japan	USA	European Union	Emerging Markets of East Asia				Total	ASEAN
						ROK	Hong Kong	Taiwan	China		
1999	1	AGRICULTURE, FISHERY AND FORESTRY	6.46	13.86	33.11	5.96	11.3	18.01	0.76	36.03	25.33
	2	MINING AND QUARRYING	75.46	12.2	8.89	-	-	-	-	-	68.06
	3	MANUFACTURING	198.14	5.69	72.3	110.81	18.76	60.71	0.6	190.88	76.41
	4	CONSTRUCTION	78.16	2	3.29	2	1.67	15.65	0.1	19.42	30.87
	5	TRADE/COMMERCE	-	-	-	-	-	-	-	-	-
	6	FINANCIAL INTERMEDIATION AND SERVICES (incl. Insurance)	2.15	-	15.28	-	1.5	-	-	1.5	-
	7	REAL ESTATES	-	-	-	-	-	-	-	-	-
	8	SERVICES	40.1	8.54	34.67	78.21	69.55	27.2	5.51	180.47	88.59
	9	OTHERS (Not Elsewhere Classified)	-	-	-	-	-	-	-	-	-
		TOTAL	**400.47**	**42.29**	**167.54**	**196.98**	**102.78**	**121.57**	**6.97**	**428.3**	**289.26**
2003	1	AGRICULTURE, FISHERY AND FORESTRY	2.76	-	7.04	2.36	0.07	1.04	-	3.47	14.12
	2	MINING AND QUARRYING	140.08	33.96	110.62	26.77	-	-	-	26.77	43.3
	3	MANUFACTURING	98.04	19.6	238.33	131.41	3.6	9.59	1.03	145.63	38.57
	4	CONSTRUCTION	0.09	-	1.4	0.97	-	0.58	0.44	1.99	3.56
	5	TRADE/COMMERCE	0.12	0.26	0.76	0.04	1.37	2	-	3.41	0.41
	6	FINANCIAL INTERMEDIATION AND SERVICES (incl. Insurance)	-	-	5	-	-	4.78	-	4.78	-
	7	REAL ESTATES	-	-	-	-	0.37	-	-	0.37	0.28
	8	SERVICES	78.85	0.26	121.26	13.23	0.74	-	-	13.97	0.02
	9	OTHERS (Not Elsewhere Classified)	0.14	0.08	23.38	0.22	0.14	-	-	0.36	0.13
		TOTAL	**320.08**	**54.16**	**507.79**	**175**	**6.29**	**17.99**	**1.47**	**200.75**	**100.39**

Source: ASEAN Secretariat, ASEAN Statistical Yearbook, 2004

Table A2: FDI FLOWS TO INDONESIA BY ECONOMIC SECTORS AND REGIONAL BLOCS OF COUNTRIES (US$ million)

ECONOMIC SECTOR		SOURCE COUNTRY	Japan	USA	European Union	Emerging Markets of East Asia				Total	ASEAN
						ROK	Hong Kong	Taiwan	China		
1999	1	AGRICULTURE, FISHERY AND FORESTRY	-14.69	8.62	-1.29	-0.05	-89.72	-	-	-89.77	-3.38
	2	MINING AND QUARRYING	64.38	20.7	-305.23	2.55	-	-	-	2.55	-0.57
	3	MANUFACTURING	-856.16	19.05	-501.87	45.88	-22.8	-20.5	-1.16	1.42	-120.24
	4	CONSTRUCTION	-16.23	77.79	1.05	23.08	1.66	-	-	24.74	-35.25
	5	TRADE/COMMERCE	-80.37	0.05	0.5	-	-1.79	-	-	-1.79	-81.03
	6	FINANCIAL INTERMEDIATION AND SERVICES (incl. Insurance)	-74.66	1.46	-5.48	-	-	-	-	-	-
	7	REAL ESTATES	-63.94	-	-22.37	-2	-	-	-	-2	-133.5
	8	SERVICES	-76.81	63.28	-233.53	-5.53	-27.62	-	-	-33.15	-34.36
	9	OTHERS (Not Elsewhere Classified)	-16.29	-0.93	-4.77	-0.19	-3.66	-	-	-3.85	-19.5
		TOTAL	**-1,134.77**	**190.02**	**-1,072.98**	**63.75**	**-143.94**	**-20.5**	**-1.16**	**-101.86**	**-427.83**
2003	1	AGRICULTURE, FISHERY AND FORESTRY	-2.88	125.31	-9.64	-	-	-	-	-	60.98
	2	MINING AND QUARRYING	-21.54	295.04	-0.01	-1.58	-	-	-	-1.58	19.43
	3	MANUFACTURING	-248.68	7.3	83.09	-71.38	-17.45	1.68	-0.38	-87.53	-196.8
	4	CONSTRUCTION	6.98	-0.57	-2.77	-28	0.14	-	-	-27.86	81.06
	5	TRADE/COMMERCE	-2.76	-379.17	24.13	-0.27	-0.5	-	-	-0.77	6.21
	6	FINANCIAL INTERMEDIATION AND SERVICES (incl. Insurance)	-9.49	83	13.04	-6.54	-	-	-	-6.54	578.56
	7	REAL ESTATES	-	-	-	-	-	-	-	-	-
	8	SERVICES	-335.32	-183.05	-332.37	0.09	-58.72	-	-	-58.64	-24.53
	9	OTHERS (Not Elsewhere Classified)	8.55	-0.07	-6.22	155.13	-2.76	-	-	152.37	-140.55
		TOTAL	**-605.13**	**-52.21**	**-230.74**	**47.44**	**-79.28**	**1.68**	**-0.38**	**-30.54**	**384.35**

Source: ASEAN Secretariat, ASEAN Statistical Yearbook, 2004

Table A3: FDI FLOWS TO MALAYSIA BY ECONOMIC SECTORS AND REGIONAL BLOCS OF COUNTRIES (US$ million)

ECONOMIC SECTOR		SOURCE COUNTRY	Japan	USA	European Union	Emerging Markets of East Asia				Total	ASEAN
						ROK	Hong Kong	Taiwan	China		
1999	1	AGRICULTURE, FISHERY AND FORESTRY	-	-	-	-	-	-	-	-	-
	2	MINING AND QUARRYING	19	67	18	-	-	-	-	-	-
	3	MANUFACTURING	990.05	-172.45	-408.28	29.64	157.65	45.7	28.69	261.69	3,193.18
	4	CONSTRUCTION	-	-	-	-	-	-	-	-	-
	5	TRADE/COMMERCE	-	-	-	-	-	-	-	-	-
	6	FINANCIAL INTERMEDIATION AND SERVICES (incl. Insurance)	-	-	-	-	-	-	-	-	-
	7	REAL ESTATES	-	-	-	-	-	-	-	-	-
	8	SERVICES	-	-	-	-	-	-	-	-	-
	9	OTHERS (Not Elsewhere Classified)	-901.05	216.45	545.28	-27.64	-137.65	-114.7	-27.69	-307.69	-3,953.18
		TOTAL	**108**	**111**	**155**	**2**	**20**	**-69**	**1**	**-46**	**-760**
2003	1	AGRICULTURE, FISHERY AND FORESTRY	-22.42	-	-1.59	-	-	-	-	-	-1.19
	2	MINING AND QUARRYING	-700.88	-117.91	-144.62	-	-	-	-	-	-
	3	MANUFACTURING	1296.49	147.49	-217.75	1.04	21.28	6.45	-	28.77	-33.7
	4	CONSTRUCTION	17.37	-	2.72	0.04	-	-	-	0.04	-1.12
	5	TRADE/COMMERCE	-607.43	-4.14	12.77	-	3.3	-1.9	-	1.4	-40.21
	6	FINANCIAL INTERMEDIATION AND SERVICES (incl. Insurance)	38.28	-124.8	128.76	-	1.07	-0.04	-	1.03	79.91
	7	REAL ESTATES	-12.11	4.55	-3.28	-	1.28	-	-	1.28	-9.81
	8	SERVICES	-1.76	-13.11	-11.2	-	-	-	-	-	0.69
	9	OTHERS (Not Elsewhere Classified)	-	-	0.39	-	-	-	-	-	0.18
		TOTAL	**7.55**	**-107.92**	**-233.79**	**1.08**	**26.94**	**4.51**	**-**	**32.52**	**-5.25**

Source: ASEAN Secretariat, ASEAN Statistical Yearbook, 2004

Table A4: FDI FLOWS TO PHILIPPINES BY ECONOMIC SECTORS AND REGIONAL BLOCS OF COUNTRIES (US$ million)

ECONOMIC SECTOR		SOURCE COUNTRY	Japan	USA	European Union	Emerging Markets of East Asia				Total	ASEAN
						ROK	Hong Kong	Taiwan	China		
1999	1	AGRICULTURE, FISHERY AND FORESTRY	-1	-	0.07	-	-	-	-	-	-
	2	MINING AND QUARRYING	-	379	-	-	-	-	-	-	-
	3	MANUFACTURING	51.18	-142.35	24.35	-3	11.04	2.84	-	10.87	28.09
	4	CONSTRUCTION	4.33	-14	-	0.01	-	-	-	0.01	0.12
	5	TRADE/COMMERCE	-	-	-	-	-	-	-	-	-
	6	FINANCIAL INTERMEDIATION AND SERVICES (incl. Insurance)	4.8	136.12	3	-	21.26	0.49	60	81.75	65.38
	7	REAL ESTATES	-	-	-	-	-	-	-	-	-
	8	SERVICES	-	66.24	-	9.83	-	-	-	9.83	-
	9	OTHERS (Not Elsewhere Classified)	73.66	153.86	234.15	3.3	32.26	5.67	4.93	46.16	17.97
		TOTAL	**132.97**	**578.88**	**261.58**	**10.14**	**64.55**	**9**	**64.93**	**148.62**	**111.55**
2003	1	AGRICULTURE, FISHERY AND FORESTRY	-	-	-	-	-	-	-	-	-
	2	MINING AND QUARRYING	-7.15	-	-	-	-	-	-	-	-
	3	MANUFACTURING	35.19	10.46	1.23	1.18	-0.29	1.5	-	2.39	40.18
	4	CONSTRUCTION	19.39	-	-	-	-	-	-	-	-
	5	TRADE/COMMERCE	-	-	-	-	-	-	-	-	0.03
	6	FINANCIAL INTERMEDIATION AND SERVICES (incl. Insurance)	-9.82	-35.65	-	0	0.3	-	-	0.3	7.8
	7	REAL ESTATES	1.58	18.26	3.7	-0.04	0.56	0.12	-	0.64	0.54
	8	SERVICES	0.19	4.67	-462	0.03	2.78	-	-	2.81	147.1
	9	OTHERS (Not Elsewhere Classified)	0.9	14.5	-9.53	-	4.29	0.07	0.02	4.38	-1.19
		TOTAL	**40.28**	**12.23**	**-466.6**	**1.17**	**7.64**	**1.69**	**0.02**	**10.52**	**194.47**

Source: ASEAN Secretariat, ASEAN Statistical Yearbook, 2004

Table A5: FDI FLOWS TO SINGAPORE BY ECONOMIC SECTORS AND REGIONAL BLOCS OF COUNTRIES (US$ million)

ECONOMIC SECTOR		SOURCE COUNTRY	Japan	USA	European Union	Emerging Markets of East Asia				Total	ASEAN
						ROK	Hong Kong	Taiwan	China		
1999	1	AGRICULTURE, FISHERY AND FORESTRY	-0.06	-0.03	-0.01	0	2.36	-0.13	0.04	2.27	-38.16
	2	MINING AND QUARRYING	0	0	0	0	0	0	0	0	-0.18
	3	MANUFACTURING	230.06	516.93	3,432.17	2.79	-41.17	3.15	-7.16	-42.4	-10.45
	4	CONSTRUCTION	-42.14	-1.98	15.75	-76	-5.8	-3.23	11.69	-73.34	0.09
	5	TRADE/COMMERCE	944.62	449.58	380.71	245.6	31.26	9.12	16.63	302.6	-19.16
	6	FINANCIAL INTERMEDIATION AND SERVICES (incl. Insurance)	87.65	1,501.77	2,695.69	17.42	189.3	50.8	22.56	280.08	107.31
	7	REAL ESTATES	2.44	21.67	-49.67	1.85	-34.95	23.33	19.28	9.52	476.36
	8	SERVICES	84.02	619.95	409.58	34.68	38.23	17.13	-1.09	88.96	37.15
	9	OTHERS (Not Elsewhere Classified)	6.42	187.95	54.77	11.6	11.74	12.64	-72.25	-36.28	79.29
		TOTAL	**1,313.00**	**3,295.84**	**6,939.00**	**237.94**	**190.97**	**112.82**	**-10.31**	**531.42**	**632.26**
2003	1	AGRICULTURE, FISHERY AND FORESTRY	0.04	0	0.22	-0.11	0.1	-1.15	1.17	0.01	2.73
	2	MINING AND QUARRYING	-	-0.01	0.02	-	-	-	-	-	-0.3
	3	MANUFACTURING	168.22	777.49	1,267.38	2.98	20.39	13.39	-0.4	36.36	12.71
	4	CONSTRUCTION	-19.53	-40.95	64.4	-30.53	-5.58	0.03	-3.02	-39.1	4.12
	5	TRADE/COMMERCE	192.45	479.22	544.88	-32.46	102.44	-3.8	-2.85	63.32	-23.68
	6	FINANCIAL INTERMEDIATION AND SERVICES (incl. Insurance)	346.14	902.75	1,572.54	13.6	63.22	149.36	-41.38	184.8	48.97
	7	REAL ESTATES	25.13	27.1	113.34	6.62	-35.07	2.55	26.87	0.97	327.44
	8	SERVICES	34.18	213.49	-59.98	-3.82	-1.94	1.26	7.75	3.24	27.59
	9	OTHERS (Not Elsewhere Classified)	-1.81	74.86	-54.2	34.26	12.06	31.38	-1.49	76.2	20.59
		TOTAL	**744.82**	**2,433.94**	**3,448.61**	**-9.47**	**155.62**	**193.01**	**-13.36**	**325.8**	**420.18**

Source: ASEAN Secretariat, ASEAN Statistical Yearbook, 2004

Table A6: FDI FLOWS TO THAILAND BY ECONOMIC SECTORS AND REGIONAL BLOCS OF COUNTRIES (US$ million)

ECONOMIC SECTOR		SOURCE COUNTRY	Japan	USA	European Union	Emerging Markets of East Asia				Total	ASEAN
						ROK	Hong Kong	Taiwan	China		
1999	1	AGRICULTURE, FISHERY AND FORESTRY	-	0.59	-	-	-0.02	-	-	-0.02	-
	2	MINING AND QUARRYING	16.32	-4.67	-43.98	-	0.29	-	-	0.29	-48.85
	3	MANUFACTURING	326.87	356.94	229.65	3.67	55.41	53.57	-3.24	109.41	86.04
	4	CONSTRUCTION	8.41	-0.01	-14.87	0.64	0.23	-0.94	-0.76	-0.83	2
	5	TRADE/COMMERCE	95.13	128.77	508.64	1.34	14.05	51.81	0.24	67.44	145.02
	6	FINANCIAL INTERMEDIATION AND SERVICES (incl. Insurance)	25.08	68.36	121.36	-	81.81	1.2	-	83.02	43.94
	7	REAL ESTATES	0.77	61.13	41.66	-	7.82	9.05	1.26	18.13	43.2
	8	SERVICES	6.29	16.92	74.98	-	61.58	-0.06	-	61.52	286.39
	9	OTHERS (Not Elsewhere Classified)	9.48	13.2	451.03	-0.18	12.47	6.86	0.36	19.51	14.29
		TOTAL	**488.35**	**641.23**	**1,368.47**	**5.47**	**233.66**	**121.5**	**-2.14**	**358.48**	**572.04**
2003	1	AGRICULTURE, FISHERY AND FORESTRY	-1	1	-	-	20	-	-	20	1
	2	MINING AND QUARRYING	-	-44	-29	-	-	-	-	-	100
	3	MANUFACTURING	465	-25	-78	4	16	41	13	74	54
	4	CONSTRUCTION	29	1	-	-	4	-	1	5	2
	5	TRADE/COMMERCE	179	31	-90	10	40	26	2	78	373
	6	FINANCIAL INTERMEDIATION AND SERVICES (incl. Insurance)	8	-219	-50	-	14	-	-	14	3
	7	REAL ESTATES	21	-17	17	1	11	-2	-	10	11
	8	SERVICES	30	4	-6	11	24	1	-	36	-80
	9	OTHERS (Not Elsewhere Classified)	85	92	251	2	227	15	5	249	206
		TOTAL	**816**	**-176**	**15**	**28**	**356**	**81**	**21**	**486**	**670**

Source: ASEAN Secretariat, ASEAN Statistical Yearbook, 2004

Appendix 2

Table A7: Results of Panel Growth Regressions for Selected Asian Countries with Fixed Effects: 1988-2005 (Dependent Variable: Real Growth Rate of GDP)

Growth Rates of Variables	(1)	(2)	(3)
Govt Budget/GDP $_t$	-0.013 (0.075)	-0.013 (0.075)	-0.014 (0.075)
Long-Term Debt/Total Debt $_t$	-0.051** (0.016)	-0.053** 0.015)	-0.059** (0.018)
Short-Term Debt/Total Debt $_t$	0.064 (0.373)	0.064 (0.173)	0.063 (0.169)
Unemployment Rate $_t$	-0.201 (0.130)	-0.200 (0.130)	-0.198 (0.131)
Inflation Rate $_t$	-0.072** (0.035)	-0.072** (0.035)	-0.071** (0.034)
FDI/GDP $_{t-1}$	0.079** (0.041)	0.071** (0.035)	0.082** (0.040)
Gross Domestic Capital Formation/GDP $_{t-1}$	0.028 (0.034)	0.028 (0.034)	0.027 (0.034)
Gross Domestic Capital Formation/GDP $_t$			0.049* (0.166)
Export/GDP $_{t-1}$	0.287* (0.167)	0.287* (0.167)	0.273* (0.166)
Asian Crisis: Export	-1.859 (3.125)	-1.860 (3.125)	-1.779 (3.073)
Asian Crisis: FDI	-2.171* (1.250)	-2.171* (1.250)	-2.273* (1.243)
Post Asian Crisis		-2.621** (1.249)	-1.738** (1.220)
Constant	9.287** (0.930)	9.287** (0.930)	9.266** (0.921)
Time Dummes	Yes	Yes	Yes
R-Square	0.622	0.622	0.625
Obs	151	151	151

* - 10% level of statistical Significance, ** - 5% level of statistical significance

- Standard error is given in the Parenthesis

- Lags were used to take account of the simultaneity problems in the regression but a more robust methodology might be to use the GMM estimation techniques.