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**Two Crises Separated by Two Decades:
Savings Glut and Trade Strategy in select East Asian Economies**

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Abstract: This paper seeks to explore the relationship between the global financial crisis (of 2007-09) and the East Asian crisis (of 1997 – 99) *via* the contribution of four East Asian countries (viz., Korea, Thailand, Indonesia and Malaysia) in formation of the ‘global imbalance’, i.e., experience of substantial and consistent current account surplus in these countries, alternatively described as excess of saving over investment. Taking a cue from Bernanke’s ‘savings glut’ hypothesis, which has held ‘global imbalance’ to be a primary responsible factor behind the global financial crisis, specifically, the paper argues that in all these countries, the nature of current account balance has undergone a sea change since the end of 1990’s / beginning of the new millennium. All these countries also accumulated substantial amount of foreign exchange (forex) reserves since then. While capital inflows and exchange rate movements might have contributed partially to the accumulation of forex reserves, the primary reason has been identified as a major shift of trade regime / strategy and consequent trade surplus in all these countries. The paper conjectures that the mishandling of the rescue package by International Monetary Fund (IMF) in these countries could have induced them to go aggressively for self-insurance in the form of accumulation of forex reserves *via* the route of trade and current account surplus. Thus, the two crises separated by a decade and in different continents are indeed linked through providing an incentive for brewing up of global imbalance *via* an activist trade policy in select East Asian countries. Seen in this context and from this standpoint the two crises indeed appear to be close siblings!

Keywords: Global Financial Crisis, East Asian Crisis, IMF, Global Imbalance, Trade Regime, Korea, Thailand, Indonesia, Malaysia

JEL Classification: F41, F 62, O53

Two Crises Separated by Two Decades: Savings Glut and Trade strategy in select East Asian Economies

1. Introduction

The story of global financial crisis is by now well-known. A process of bankruptcies in the mortgage market in the US (primarily emanating from the sub-prime housing loans and their securitized financial markets) turned into a global financial crisis. Various theses have been advocated behind the brewing of the subprime crisis – lack of financial regulation, emergence of complex securitized products, failure of the credit rating agencies, growing asset price bubble and underpricing of risks – all seemed to have contributed to the crisis (Kishore *et al.*, 2011). Insofar as underpricing of risk is concerned, it has been pointed out that emergence of global imbalance whereby high current account surplus (reflecting positive saving-investment gap) and foreign exchange reserves accumulation of China, some countries in developing Asia and oil producing countries tended to finance US current account deficit (Bernanke, 2005). While the role of China and oil producing nations in global imbalance is well documented, this paper looks into the role of select countries in Asia in this context. Specifically, we look into the behavior of four East and South East Asian countries, *viz.*, Indonesia, Malaysia, Korea and Thailand that were savaged by the East Asian crisis of late 1990s.

The story of the East Asian crisis is also well known. A group of countries that were known as “miracle countries” till mid-1990s suddenly fell into a currency cum financial crisis since 1997. What started in Thailand with the collapse of the Thai baht in July 1997 soon got spread over other countries like Korea, Indonesia, Malaysia and the Philippines and generated a contagion culminating into an East Asian financial crisis. Various causes have been attributed to the emergence of the crisis – extravagant corporates taking recourse to foreign currency loans, unsound banking system, and inability to defend pegged exchange rates are among them. In order to tide over the crisis, many of these countries had to approach the IMF for financial assistance. It is by now well documented that the IMF messed up the East Asian economies with its one size fits all and over emphasis on fiscal contraction as conditionality. Interestingly, by the beginning of the new millennium most of these countries were out of the crisis.

It is the hypothesis of the present paper that as a result of the messing up by the IMF, these countries learnt the importance of forex reserves as a self-insurance mechanism in times of crisis. But how does a country accumulate forex reserves? These countries changed their trade strategies culminating into current account surplus. This current account surplus together with moderate capital flows and a managed float currency allowed them to accumulate forex reserves. This was an important element of global imbalance. Thus, the link between the two crisis after a gap of ten years – one in 1997 and the other in 2008 - is established in three key steps: (a) Global imbalance was a cause of the great recession; (b) these Asian countries (along

with others) contributed to global imbalances; and (c) after being bitten by the crisis and possibly due to the raw deal that they got from the IMF as rescue packages, these Asian countries started having current account surplus through a conscious effort towards an activist trade strategy and managed float currency.

The rest of this paper tells this story in a backward direction and is organized as follows. Section 2 looks at contours of the global imbalance. Section 3 gives a brief narration of the East Asian crisis and the associated IMF policy package and argues that one of the key reasons behind it was the IMF's faulty handling of the crisis. Section 4 looks into the inter-temporal behavior of current account, financial account, reserves accumulation and exchange rate behavior in these for East Asian economies. Section 5 probes into the pattern of changes of trade strategy and argues that such a shift of trade policy and reserves accumulation laid the foundation of global imbalances. Section 6 concludes the paper.

2. The Global Financial Crisis and the Global Imbalance

A key reason behind the global financial crisis that has been repeatedly emphasized was the notion of global imbalance. This can be traced in writings of the former U.S Fed Ben Bernanke. In particular, Bernanke (1995) looked at global current account balance in select industrial and developing countries in 1996 and 2003 and arrived at the conclusion there has been a great change in the pattern of current account balance between these two years (Table 1). Illustratively, while the current account deficit of the US has increased from USD 120 billion in 1996 to USD 531 billion in 2003, during the same period the current account surplus in China has increased from USD 7 billion to USD 46 billion. More surprisingly, the situation in current account in countries like Korea or Thailand has moved from large deficit to a substantial surplus. The position has been succinctly summarized in Bernanke (1995), who noted:

"What then accounts for the rapid increase in the U.S. current account deficit? My own preferred explanation focuses on what I see as the emergence of a global saving glut in the past eight to ten years. This saving glut is the result of a number of developmentsIn my view, a key reason for the change in the current account positions of developing countries is the series of financial crises those countries experienced in the past decade or so. In the mid-1990s, most developing countries were net importers of capitalIn response to these crises, emerging-market nations either chose or were forced into new strategies for managing international capital flows. In general, these strategies involved shifting from being net importers of financial capital to being net exporters, in some cases very large net exporters.Increases in foreign-exchange reserves necessarily involve a shift toward surplus in the country's current account, increases in gross capital inflows, reductions in gross private capital outflows, or some combination of these elements. ...These "war chests" of foreign reserves have been used as a buffer against potential capital outflows. Additionally, reserves were accumulated in the context of foreign exchange interventions intended to promote export-led growth by preventing exchange-rate appreciation. Countries typically pursue export-led growth because domestic demand is thought to be insufficient to employ fully domestic resources. Following the 1997-98 financial crisis, many of the East Asian countries seeking to stimulate their exports had high domestic rates of saving and, relative to

historical norms, depressed levels of domestic capital investment--also consistent, of course, with strengthened current accounts" (emphasis added).

[Table 1 to come about here]

Later, Blanchard and Milesi-Ferritti (2009) looked at the pattern of global imbalance in more holistic manner. They grouped the world in terms of the following clusters, *viz.*, the US, Peripheral Europe, Rest of the World, China, Emerging Asia, Japan, oil exporters, and core Europe and looked at the current account balance for each of the clusters as a percentage of world GDP (Table 2). Their calculation indicated that while Europe (comprising the surplus core Europe and deficit peripheral Europe) is broadly in balance, the huge deficit of the U.S has been counterbalanced by China, Japan, oil exporting countries and emerging Asia - each of whom has significant current account surplus both during 2001-2004 and 2004-2008. Subsequently, in the post - global financial crisis period there has been some reduction in extent of global imbalance (Table 3).

[Table 2 to come about here]

[Table 3 to come about here]

A simple way to understand the notion of savings glut is perhaps through a stylized macroeconomic identity in a 2-economy world (1 and 2; with C, I, S, G, X, M and CA referring to private consumption, private investment, private savings, government expenditure, exports, imports, and current account balance, respectively) so that:

$$(1a) \quad Y_1 = C_1 + I_1 + G_1 + X_1 - M_1 \Rightarrow Y_1 - C_1 - G_1 - I_1 = X_1 - M_1 \Rightarrow S_1 - I_1 = X_1 - M_1 \Rightarrow S_1 - I_1 = CA_1$$

$$(1b) \quad Y_2 = C_2 + I_2 + G_2 + X_2 - M_2 \Rightarrow S_2 - I_2 = CA_2$$

Note that, in this simplified framework $CA_1 + CA_2 = 0$, thus

$$(1c) \quad CA_1 < 0 \Rightarrow CA_2 > 0, \text{ in turn, this implies that } S_1 < I_1 \text{ and } ipso\ facta, S_2 > I_2$$

That is to say, the country with current account surplus has savings glut.

Interestingly, in any country a persistent current account deficit would mean that the currency will depreciate heavily so that with increasing exchange rate adjustment, the disequilibrium in current account will eventually vanish. But this did not happen in the U.S. While the inability of a country to incur persistent CAD is valid in case of a non-reserve currency issuing economy, for a reserve-currency issuing economy the logic gets *topsy turvy*. Illustratively, for the US, continuation of huge CAD has been on the strength of U.S dollar, phenomenon that has been termed as an "exorbitant privilege" by Barry Eichengreen, who went on to say:

"Insofar as foreign banks and firms value the convenience of dollar securities, they are willing to pay more to obtain them. Equivalently, the interest rate they require to hold them is less. This effect is substantial: the interest that the United States must pay on its foreign liabilities is two to three percentage points less than the

rate of return on its foreign investments. The U.S. can run an external deficit in the amount of this difference, importing more than it exports and consuming more than it produces year after year without becoming more indebted to the rest of the world. Or it can scoop up foreign companies in that amount as the result of the dollar's singular status as the world's currency. This has long been a sore point for foreigners, who see themselves as supporting American living standards and subsidizing American multinationals through the operation of this asymmetric financial system. Charles de Gaulle made the issue a *cause célèbre* in a series of presidential press conferences in the 1960s. His finance minister, Valéry Giscard d'Estaing, referred to it as America's "exorbitant privilege." (Eichengreen, 2011; p.4).

In order to appreciate the implication of the saving glut hypothesis, let us assume that country 2 has a savings glut and country 1 has current account deficit, then it is useful to refer to the Balance of Payments (BoP) identity of country 2 whereby,

$$(2) \quad CA_2 + KA_2 - \Delta R_2 = 0;$$

where CA is current account balance, KA is capital account balance and ΔR is the change in forex reserves, with $\Delta R < 0$ implying reserve accumulation and $\Delta R > 0$ implying drawdown of reserves.

While in normal circumstances, with full flexibility of the exchange rate and in a reserve currency issuing country the importance of ΔR would be minimal, we will argue that the case for these Asian countries (for most of the years since 2000) may be characterized as:

(2a) $CA_2 \gg 0$ implying large Current account surplus

(2b) $KA_2 > 0$ implying moderate capital account surplus

(2c) $\Delta R_2 < 0$ implying substantial reserves accumulation

The argument put forth in this paper has the following two building blocks: (a) all the four South East Asian countries registered highly positive CA year after year is a result of a conscious trade-oriented strategy; and (b) all these countries also experienced simultaneous capital inflows and huge reserve accumulation (Table 4). This was a product of managed float in their exchange rate. The emphasis on reserve accumulation was perhaps an aftereffect of the messy treatment that these countries experienced from the IMF during the East Asian crisis; faced with such macroeconomic humiliation these countries discovered the importance of self-insurance in the form of accumulation of forex reserves. The relative stability of exchange rate (perhaps arising out of intervention in the foreign currency market and resulting semi-pegged exchange rate) aided this process.

(Table 4 to come about here)

2. The East Asian Financial Crisis and the IMF Intervention

Of the eight East Asian countries comprising Hong Kong, Indonesia, Malaysia, the Philippines, Singapore, South Korea, Taiwan and Thailand, at least four countries (viz., Thailand, Korea, Indonesia, and Malaysia) which was largely seen as the successful actors in the "east Asian miracle" were hit hard by the crisis while Taiwan, Hong Kong and Singapore were more mildly hit.¹ What started with the devaluation of Thai baht in mid-1997 soon got spread over to its neighbors. Stock prices in all these countries collapsed and in their quest to defend fixed or crawling pegged exchange rate regime forex reserves of all these countries experienced significant drawdown (Table 5). The crisis, thus, was a largely seen as a hodge-podge of falling currencies, spiraling deficits, collapsing stock markets, high inflation and financial bankruptcies.

[Table 5 to come about here]

Various factors have been held responsible in different interpretation of the crisis; these include: government inefficiency, currency traders' conspiracy, financial panic, the business-government nexus exacerbating the 'moral hazard' problem by creating a false feeling of security amongst potential investors, inability to withstand the severe terms of trade shock, and financial fragility. Interestingly, all these countries hit back within a short period of time and by the beginning of 2000 all these countries are back to track.

[Table 6 to come about here]

In tiding over the crisis, all these contraries have taken recourse to IMF loan and by the beginning of the new millennium most of these countries have come out of the crisis with the growth regaining further momentum. It has, however, been alleged that the IMF handled the crisis countries badly and their back to the earlier growth path also coincided with a change of macroeconomic strategy, that included, (a) an active pursuit of a trade-led surplus in current account; (b) an intervened (but for necessarily with a fixed exchange rate) currency; and (c) accumulation of foreign exchange reserves. If one fast-forwards the global economy by nearly seven years or so and looks at the global financial crisis that brewed by the end 2008, and accepts that global imbalance in China, oil producing countries along with these economies played a role in brewing of the global financial crisis, then this paper argues that insofar East Asian economies are concerned, their conscious strategy of "current account surplus – intervened exchange rate and reserves accumulation" might have played a role in global financial crisis. Thus, if this strategy of management of external sector by these economies is an outcome of the lessons learnt from the East Asian crisis (and IMF's inappropriate handling), the link between the two crises over a gap of ten years gets established.

¹ One can perhaps add the Philippines to the list of affected countries. But the story of East Asian miracle was less visible in the Philippines.

Once the East Asian crisis deepened in end 1997, most of these affected countries had little option but to approach IMF. In fact, excepting Malaysia, all the three countries under consideration had approached the IMF for financial assistance to meet foreign exchange liabilities and to stabilize their currencies (Khatkhate, 1998). The IMF announced an assistance package of USD4 billion for Thailand on August 20, 1997 - subsequently other two countries followed. The IMF extended USD 10 billion to Indonesia, USD 21 to Korea, and USD 4 billion to Thailand (Table 7). Interestingly, while in both Indonesia and Thailand the financial package of the IMF was nearly 5 times of the quota of the respective countries, for Korea it was nearly 19 times – but then Korea’s quota was disproportionately small compared to the size of the economy (Takagi, 2010).

(Table 7 to come about here)

Interestingly, the IMF's policies / conditionality in these countries were actually replicas of the stereotype policies that are adopted by the IMF in any country. Illustratively, the policies that were used by the IMF were no different from those adopted in Mexico in 1995, emphasizing the fiscal retrenchment, high interest rates, withdrawal of capital controls, and exchange rate adjustment. Interestingly, the IMF policies have been criticized both by the right and the left. Consider the following statements from diverse corners.

First, Martin Feldstein for example went on to say the following about the IMF policies in East Asian crisis: "The IMF is now acting in Southeast Asia and Korea in much the same way that it did in Eastern Europe and the former Soviet Union: insisting on fundamental changes in economic and institutional structures as a condition for receiving IMF funds" (Feldstein, 1998). The IMF's used its standard prescription even though the situations in these countries were very different from that of the former Soviet Union and Eastern Europe.

Second, a stronger critique came from Stiglitz (2000), who commented:

"In the early '90s, East Asian countries had liberalized their financial and capital markets--not because they needed to attract more funds (savings rates were already 30 percent or more) but because of international pressure, including some from the U.S. Treasury Department. These changes provoked a flood of short-term capital - that is, the kind of capital that looks for the highest return in the next day, week, or month, as opposed to long-term investment in things like factories.As the crisis spread to other East Asian nations--and even as evidence of the policy's failure mounted--the IMF barely blinked, delivering the same medicine to each ailing nation that showed up on its doorstep. / thought this was a mistake. For one thing, unlike the Latin American nations, the East Asian countries were already running budget surpluses. In Thailand, the government was running such large surpluses that it was actually starving the economy of much-needed investments in education and infrastructure, both essential to economic growth. And the East Asian nations already had tight monetary policies, as well: inflation was low and falling. ... The problem was not imprudent government, as in Latin America; the problem was an imprudent private sector--all those bankers and borrowers, for instance, who'd gambled on the real estate bubble".

Third, the IMF's own Independent Evaluation Office (IEO, 2003) did a soul searching. Illustratively, it noted for Indonesia, "The single greatest cause of the failure of the November 1997 program was the lack of a comprehensive bank restructuring strategy, which led to a rapid expansion of liquidity to support weak banks...The resulting loss of monetary control in turn contributed to a weaker exchange rate and greater distress in the corporate sector. For Korea, IEO (2003) noted, "In Korea, IMF surveillance failed adequately to identify the risks posed by the uneven pace of capital account liberalization and the extent of banking sector weaknesses, owing to the adoption of a conventional approach that focused on macroeconomic variables."

In fact, the folly of the IMF strategy can be gauged from the fact that looking at key fiscal indicators, such as, government's net borrowing, government's primary net borrowing (i.e., net borrowing plus net interest paid (interest expense minus interest revenue)), and gross government debt one arrives at the inescapable conclusion that none of these countries were fiscally profligate (Table 8). In fact, except Thailand the net borrowing of the government of all other countries appeared manageable.

(Table 8 to come here)

Thus, there is remarkable convergence on the view that the IMF messed up in handling of the East Asian countries. There was lack of political ownership in case of all the IMF programmes in this region. Illustratively, in Indonesia there was confrontation between Suharto and the IMF so much so that it has been commented, "Backed by the Clinton administration, the IMF compelled Suharto to sign a far-reaching deregulation agreement in mid-January, as the price for a US\$43 billion bailout to pull Indonesia back from the brink of economic collapse; now the IMF has threatened to punish Suharto's failure to meet deadlines under the agreement by cutting off emergency funds, precipitating a further plunge in currency and share values".²

As already mentioned, it is our contention that bitten by the drying up of private commercial capital inflows, as a result of the wrong strategy pursued by the IMF, these countries learnt the value of self-insurance in the form of having huge forex reserves in a hard way. And the strategy they took for that objective was a combination of trade promotion, supported by encouraging capital inflows and some degree of exchange rate pegging. Next two sections turn to these issues.

² 'Behind the Suharto-IMF confrontation', *Editorial in <https://www.wsws.org/en/articles/1998/03/indo-m18.html>*
18 March 1998

4. BoP and Emergence of consistent Current Account Surplus in East Asia

4.1 Current Account

All four countries viz. Thailand, Malaysia, Korea Rep and Indonesia experienced a significant growth during 1980-1996. The experience of Asian tigers opened a new horizon for 'export led growth'. In general, their Trade-GDP ratio remained close to (some times more than) 100. Following, high economic growth, they have also experienced a surge of domestic demand leading to a large increase in imports. As a result, these countries had current account deficit mostly (see Figure 1) during 1990s. The pro-liberal government focused both on unilateral and WTO compatible (multilateral) liberalization process. High FDI in export oriented industry helped these selected economies to remain buoyant despite current account deficit. High domestic savings along with FDI pushed the investment level very high which led the industrial growth in these economies. Current account deficits peaked at around 10 percent of GDP in Malaysia in 1995 and at 8 percent of GDP in Thailand in 1996. Deficits were also large in South Korea and Indonesia hovering at 4-5 percent of GDP. There has been a reversal of the trend at the outbreak of the Asian crisis in 1997-98.

(Figure 1 to come about here)

There are country wise different reasons behind the 1997 crisis but had almost similar impact on Thailand, Malaysia, Indonesia and Korea Rep leading to sharp depreciation of currency, contraction of domestic demand, rise in unemployment, inflation which ultimately had a devastating impact on the economic growth of these four countries. Availability of huge foreign funds at relatively low interest, inefficient domestic allocation of borrowed foreign resources especially because of weak banking system, poor corporate governance and a lack of transparency in the financial sector are some of the general reasons behind the crisis. This was accentuated as borrowers had false sense of security due to the existing exchange rate which was effectively fixed and encouraged them to borrow further. Exports were started weakening in mid 1990s due to host of reasons such as appreciation of dollar against yen, devaluation of Chinese yuan and loss of some markets due to the establishment of the North American Free Trade Agreement (NAFTA) (Aghevli, 1999).

In 1998, Indonesia's GDP growth rate at constant price was (-) 13.1%, for Korea it was (-) 5.5%, for Malaysia and Thailand it was (-)7.4% and (-)10.5%, respectively. However, more surprisingly, these economies have bounced back quite fast except Indonesia which took relatively longer time. Generally, it is believed that countries take precautionary protectionists measure in the aftermath of crisis. However, these countries did not leave the path of liberalization. In fact, most of them have followed it more vigorously, made their attempts to fulfill WTO commitment and actively negotiated various trade agreements especially after 2000. There has been restriction on fund transfer (capital control) but that too for a brief point

of time. A snapshot of dynamics of macroeconomic variables and strategies pursued by these countries immediately after the crisis is given below.

- They made attempts to increase exports taking the advantage of depreciated currency
- There has been slow growth of imports as domestic demand remained sluggish for sometime
- Focus has been given on efficiency gain which was built on solid foundation of manufacturing sector (achieved through two decades of high investment).
- Diversification of products, looking for new destination etc. was pursued consciously. After the crisis, these countries did not slow down the process of liberalization. In fact, they have pursued it more vigorously.
- Soon, current account turned to surplus. Only for Indonesia, it took longer time.
- Before the crisis, foreign exchange was built up through FDI despite having current account deficit. Just before the crisis, average savings rate was around 30% and investment was between 35-40% except for Indonesia (in 1996, Indonesia's savings-GDP ratio and investment-GDP ratio were 23% and 31.6% respectively).
- During the post crisis period, foreign investment plummeted and it took long time for investment rate to come back and in most of the cases it did not reach the pre-crisis level. During 2007-08, investment ratio was more than 30% but US sub-prime crisis gave another blow. However, savings rate increased quite fast to the pre-crisis level. Higher savings and current account surplus during the post crisis period helped these countries to accumulate huge reserves.

The current account reversals that surpluses were accompanied with a sudden stop in capital inflows which significantly exceeded current account deficits in the first half of the 1990s. The reversal was largest in Korea wherein a USD 40 billion surplus was achieved at the end of 1997. While in Thailand, Indonesia and Malaysia, the current account surplus was in the range of USD 10-15 billion. However, except in the case of Malaysia, there was again a trend reversal since 2004 with increasing foreign investment in Thailand, Indonesia and Korea which led to a gradual decrease in the current account surplus until it reached a nadir around 2008 during the subprime crisis. Most of this investment was in the form of credit default swaps (CDS) and collateralized debt obligation (CDO) which were being held by some of the banks in these countries, effectively coupling them to the subprime crisis of 2008. As the subprime crisis unfolded, economies again saw a drop in investment. Meanwhile, it is important to note that these countries did not move away from the open economy path. Rather, they derived the fruits of their diversification strategy. Asian countries such as China, India have now become important trade partners and they could sail through despite slowdown of the West at least for some time. This has led to current account surplus in post 2008. Countries made progress in

the areas such as trade facilitation, service sector liberalization, patents, competition policy, streamlining and divestment of public sectors, etc.

[Table 9 to come about here]

In the case of Malaysia, the aftermath of the 1997-98 crisis saw an increase in capital control. Restrictions were imposed on transfers of ringgit funds in external accounts held by nonresidents. Measures were also introduced to control conversion of the ringgit to other currencies. Resident companies were prohibited from foreign loans unless their revenue was also in foreign currency, to prevent currency mismatch—a major factor in the Asian financial crisis. These capital controls partially stemmed the investment inflow into the country which led to a continuous current account surplus and considerably insulated Malaysia from the subprime crisis of 2007-08.

The dramatic change from current account deficit in the pre-crisis period to current account surplus in the post-crisis period is also statistically validated through Chow test (Table A2.1 in the Annex 2) and Quandt-Andrews unknown break point test (Table A2.2 in Annex 2). Interestingly, Chow tests detect the presence of a break in 1998 in the current account trend (i.e., of the form $CAD/GDP = a + bt$) except for Korea. Further, through the Quandt-Andrews test it is shown that the break happens in 1998 for Malaysia, Thailand and Indonesia and in 1989 for Korea. Due to significant economic growth Korea enjoyed a surge in current account surplus in late 1980s and the model could have captured this very fact. However, a multiple break test through Bai-Perron (2003) test, allowing for heterogeneous error distributions across breaks confirms another breakpoint in 1998 for Korea also (Table A2.3 in Annex 2).

In 2007, the Economist³ predicted that Asian economies have become more immune to any new crisis. These economies now have sizeable current-account surpluses and good foreign exchange reserves. Many economists complained that these countries had more reserves than they required. Non-performing loans (NPLs) in the banking sector have fallen, and extensive financial reforms have taken place. Regulatory controls have also, by and large, improved substantially. The resilience of South East Asian economies in post sub-prime crisis is remarkable.

4.2 Capital Account, Exchange Rate and Reserves Accumulation

There is a debate whether the pull or push factors dominate capital / financial inflows. However, an interesting trait on global capital inflows is that to these happen as part of global trends. In particular, in case of these four countries under consideration, along with a positive current account and rebounding of growth, these economies were lucky during the period after

³ <http://www.economist.com/node/9432495>

the East Asian crisis and in the run up to global financial crisis. In fact, as a proportion of global GDP, the period 2000-2007 witnessed a surge of global inflows to 13.3 per cent from 6.2 per cent experienced during 1999-1997 (Table 10). As this surge happened largely in portfolio and other investments, in some sense this was the result of the booming financial sector in the advanced countries during the period. Hence, these countries were flooded with capital inflow during the period between the recovery period from East Asian Crisis to run-up to the global financial crisis.

(Table 10 to come about here)

More specifically, Forbes and Warnock (2012) used quarterly gross flows data in a sample of 58 countries over the period from 1980 through 2009 to identify four types of episodes: (a) *Surges*: a sharp increase in gross capital inflows; (b) *Stops*: a sharp decrease in gross capital inflows; (c) *Flight* – a sharp increase in gross capital outflows; and (d) *Retrenchment*: a sharp decrease in gross capital outflows. We looked into these episodes for countries under consideration (Table 11). Interestingly, during the period 2000-2007, excepting Malaysia, the other three countries had at least one episode of capital surge. Occurrence of episodes of stops, flight and retrenchment has also come down.

(Table 11 to come about here)

One of the key lessons of the East Asian crisis was perhaps that neglecting the tensions of the impossible trinity could turn out to be expensive for any country. That is to say, opening up of the capital account and a pegged exchange rate can completely deprive the country from the monetary independence. Thus, what was true for oil producing countries may not be true for East Asia. Thus, three of these countries (excepting Malaysia) have given up the fixed peg after the crisis (Table 12). Consequently, Indonesia, Korea and Thailand experienced two way movements in their currencies; Malaysia, on the contrary, maintained its peg to USD (Figure 2).

(Table 12 to come about here)

(Figure 2 to come about here)

But notwithstanding limited flexibility in exchange rate, all these countries accumulated significant amount of forex reserves. Illustratively, by 2008 Korea's forex reserves touched USD 200 billion (Table 13). Two comments are in order here. First, by the Chinese standard, the excess reserves of many of these countries were far less. Second, notwithstanding holding reasonable amount of forex reserves some of these were about to fall prey to the global financial crisis. The Korean experience is of lesson here. Despite having substantial amount of forex reserves, both the Korean currency and stock market came under severe attack during the third quarter of 2008. This gave rise to some fears about a repeat of the 1997–1998 crisis. Subsequently the currency and stock market stabilized after the Bank of Korea entered into a swap agreement with the US Federal Reserve (Park, and Estrada, 2009).

(Table 13 to come about here)

With All these developments, has been a fall in vulnerability of these four countries? In 2007 at the tenth anniversary of the Asian financial crisis the IMF looked at the extent of vulnerability in the East Asian countries. The analysis indicated that fiscal policy remained conservative (as in 1997), lower credit growth and a more flexible exchange rate have reduced vulnerability. The real exchange rate has appreciated, but remains below its 1997 level, and does not generate major competitiveness concerns. Reserves have increased significantly and the external current account is in surplus. Financial and corporate sector weaknesses have lessened. The recapitalization of the banking sector and related regulatory and supervisory changes have substantially reduced the balance sheet and corporate governance problems that proved so damaging in 1997 (in particular excessive foreign borrowing and lending by banks to related corporate parties). Foreign borrowing (as a proportion of foreign exchange reserves and in U.S. dollar terms) has declined significantly since 1997, as has the share of domestic lending in foreign exchange (Table 14).

(Table 14 to come about here)

What is the upshot of the discussion of the trends in capital account, reserve accumulation and exchange rate behavior? We have three comments. First, in these countries, there were substantial capital inflow during the period 2000-2007; but that was more in a result of excess global inflows (caused by excessive finalization via securitization) seeking yield. Second, exchange rate in most of these countries has exhibited a two way trend; thus, unlike China the extent of intervention in forex market was far less in these countries. Third, while all these countries increased their forex reserves, its extent was not necessarily in huge excess. Consequently, improvement in the current account had hugely to do with the strategic shift in trade policy. To this we now turn.

5. East Asian Countries: Changes in Trade Strategy

All the selected countries had carefully crafted trade strategy before and more after the crisis. As there have been different pain points for each of the countries, economic policy in general and trade policy in particular was synchronized accordingly. We have observed almost similar kind of outcomes in terms of economic growth, investment scenario and current account situation. Table 15 below provides a snapshot. There are few stylized facts about the outcome of the crisis which are given below.

- Economies experienced high growth rate along with high export and investment before the crisis. Growth rebounded fast but not reached to the pre-crisis level. Investment rate took long time to catch up. For Korea and Indonesia eventually, they reached at pre-crisis level.

- Growth rate fell drastically during the Asian financial crisis and both export and import declined. However, as countries followed trade liberalization process rigorously, trade growth picked up soon.
- Before the crisis, Current Account was negative and soon after the crisis, it became positive. Though the economies received a jolt during sub-prime crisis but current account was only hit temporarily. Economic growth mostly bounced back after the sub-prime crisis sooner than expected.
- These economies have diversified significantly after the Asian crisis including their export basket and destination. Robust corporate sector and financial sector management along with focus on new areas such as tourism, health, education, bio-technology etc. helped these countries to have stable economic performance after the crisis.
- All these countries experienced rising positive trade balance with the USA which is significant for their overall current account surplus.
- Thailand had a speculative attack and it floated its currency followed by major economic reform with a focus to increase its exports. A special focus was given on services exports (tourism). Malaysia had major challenge as wages were rising fast and hence, in their policy stance major focus was on shifting from labour intensive products to more capital intensive products in their export basket. Malaysia's growth was largely driven by FDI in production. Indonesia's economic health was not as good as others to respond back after the crisis. It took longer time to get stabilized. After the crisis major focus was on improving the attractiveness of FDI and increasing domestic demand. Korea's main problem was high debt of large conglomerations (chaebols). Because of very good economic foundation, it bounced back quite fast after the crisis. However, its focus on the manufacturing exports got more strengthened. It also diversified its product basket much. Prudent fiscal and trade policy along with clever currency management helped the country to remain buoyant. All these countries took serious steps in improving financial sector with better regulation, transparency.

[Table 15 to come about here]

The following section provides the contour of the main trade policy stance followed by these countries before, during and after the crisis.

Thailand

During the late 1980s average growth rate of Thailand was 11.5% and it slowed down to 8.4% during the first half of 1990s. The expansion was due to buoyant domestic demand,

particularly private investment, and supported by a strong performance in manufactured exports. The share of export in Thailand's GDP grew from 32% in 1991 to 41% in 1994⁴. As a result of high degree of resource utilization, the unit costs increased and concomitantly manufacturing in Thailand started moving away from low value-added products to more technology intensive products. Thailand's intra-industry trade grew significantly, specifically in precious stones and metals, non-electrical machinery, electrical machinery, and office supplies. Thailand's trade with ASEAN and East Asian NIEs increased to 25% of the total share; marking a shift in focus away from Europe. Japan and USA remained the largest trading partners of Thailand.

As the crisis unfolded in 1996 there was an unprecedented drop in the value of exports which signaled trouble. Imports of motor vehicles fell significantly because of fall in incomes and demand while iron and steel and machinery imports fell as a result of slowdown in manufacturing. The stagnant demand in ASEAN markets as a result of the crisis caused a shift in Thai exports to US since 1997. The major contraction of domestic demand leading to reduction of imports resulted into a current account surplus. The current account moved from a deficit of 8% of GDP in 1996 to a surplus of 12% of GDP in 1998⁵.

Since, the early 2000s Thailand's GDP grew at an average rate of around 5.7% bolstered by strong growth in exports and a slowing growth in domestic consumption. During the post crisis period, Thai Government could resist the protectionist pressures, opting instead for measures aimed at reinforcing its already increasingly outward-oriented trade and investment policies. Initial tightened monetary and fiscal policy did not last for long and government decided to move towards flexible exchange rate. Special programmes were carried out for the benefit of poorer people. More focus was given on economic infrastructure, competition law was strengthened and MFN tariff in general declined keeping few 'tariff peaks' strategically. The overall objective of the trade policy has been 'export led recovery'. Government also took several bold internal policies such as restructuring the incentive scheme, aligning standards and regulation with international norms and opening financial sector for foreign investment. Also, EXIM bank came forward to incentivise the exports from the SME sector through a joint programme with Ministry of Finance. In post 2000, Thailand mostly followed accommodating monetary policy to boost demand and attract foreign investment. As a result, between January 2004 and December 2006, real effective exchange rate appreciated by 12.7%. Due to robust growth in tax revenue fiscal surplus also grew from 3.8% of GDP in 2003 to 4.4% in 2006⁶.

Regarding the diversification of export basket, it can be highlighted that during post crisis period, export of textile and consumer goods fell and there has been a significant rise of

⁴ Trade Policy Review of Thailand (1995), WTO

⁵ Trade Policy Review of Thailand (1999), WTO

⁶ Trade Policy Review of Thailand (2007), WTO

exports of computers and telecommunication products. Protection was continued in automobile sector and by 2005 almost 95% of domestic demand was served by local production. By 2005, 76.5% of merchandise exports consisted of manufactured products. In a strategic plan, Thailand gave focus on four group of industries; (i) potential industries (electronics, automotive, textiles, rubber, petrochemicals and plastics, and processed food); (ii) improving industries (electrical appliances, furniture, steel, and pharmaceuticals); (iii) survival industries (machinery and shipbuilding); and (iv) new wave industries (bio-fuel and bio-products). Thailand also focused on service sector with a special emphasis on tourism sector. It has contributed significantly in foreign exchange earnings. Revealed Comparative Advantage (RCA) analysis reveals that Thailand maintains high RCA in machinery, transport equipment, electronic goods, etc. along with few other products such as chemicals. Its RCA (Table 16) has gone down in food products, textile, footwear, animal products etc. The Figure A2 (in the Annexure) also describes that trade balance with USA increased sharply after the crisis when export grew much faster than imports. Since 2008, trade balance with USA has stabilized.

Growth slowed down in 2007 as a result of high oil prices and recession in major trading partner countries. The slowdown in GDP was also a result of exhaustion of capacity and the additional capacity was being added at a slow pace. Trade shifted towards Asian economies at the expense of EC-25 and US. But these along with Japan remained the largest trading partners of Thailand. Although the 2008 global financial crises led to a fall in GDP in 2009, growth picked up again in 2010 when it reached 7.8%. Between 2007 and 2010 GDP per capita rose from US\$3,740 to US\$4,737. During this time, export growth to developing countries increased at a faster pace. Through the Financial Sector Master Plan (Phase I and II), Thailand was able to consolidate the banking sector reducing its exposure to another crisis. New rules were also in place for capital market and insurance sector for better monitoring and competitive environment. More focus has also been given towards service sector with special focus on transport and aviation sector⁷. According to Jitsuchon and Sussangkarn (2009), Thailand was able to avert the direct impact of sub-prime crisis due to its robust trade strategy after the Asian crisis. However, being highly dependent on exports, Thailand needs to look into long term indirect effect as the country is heavily dependent on export oriented industries.

Malaysia

Malaysia achieved an impressive growth in 1980s and early 1990s with a focus on industrialization. The annual GDP growth rate of the country averaged 8.6% from 1992 to 1996. During this time, average investment rate was more than 40%, savings rate was close to 35% which formed a solid foundation for economic stability. Malaysia had been implementing its

⁷ Trade Policy Review of Thailand (2012), WTO

ten-year Industrial Master Plans successfully to industrialize the economy and shift from agriculture to manufacturing. FDI has contributed Malaysia's growth substantially and in 1996, over half of all manufacturing firms' equity was foreign-owned. Malaysia followed the liberalization policy upholding the spirit of WTO. Both manufacturing and some agricultural & resource based products (such as plantation timber, rubber, palm oil etc.) contributed significantly in its export. However, export incentives are designed in such a way that it experiences a shift from agriculture to capital and knowledge intensive industries. As a result, the share of manufacturing in GDP increased from 30.5 in 1990 to 34.2 per cent of GDP in 1996. Manufactures accounted for almost 81 per cent of total exports in 1996. Growth of the manufacturing sector was also responsible for strong import growth. Exports were also significantly dependent on imported components leading to very high ratio of trade (imports plus exports) to GDP, which at 180 per cent in 1993-1996 was high in comparison with many other WTO members. Exports from FDI driven firms and SMEs in export processing zones are noteworthy. In 1995, almost 39% of manufacturing exports have been from electrical and electronic sector, followed by machinery (19.3%) and iron & steel and products thereof (6%). USA, Japan, Singapore and other major Asian countries have been the important trading partners of Malaysia⁸.

The major economic challenge faced by Malaysia before the Asian crisis has been the rising wage rates and gradual scarcity of skilled and semi-skilled workers. Unemployment had fallen to 2.6% in 1996 and the economy was considered at full employment level. Nominal wages were increasing more than the productivity growth as a result of which, there was threat of erosion of Malaysia's competitiveness. In order to counter this, Malaysian government was discouraging labor-intensive industries and encouraging capital-intensive ones to induce intra-sectoral movement of labor. In mid 1990s, Malaysia followed a relatively tighter monetary policy to contain the overheating due to high economic growth. This along with slower export growth pulled down the GDP growth in 1996 leading to contraction of import demand. As a consequence current account deficit dropped from 10 per cent of GDP in 1995 to 4.9 per cent in 1996.

Following the Asian financial crisis, despite having strong economic fundamentals, the GDP growth rate plummeted to -7.4% in 1998, investment rate dropped from 43.6% in 1995 to only 26% in 1998 and import growth was -24.7% and export growth was merely above zero percent⁹. Unemployment rate rose to 3.3% in 1998, up from 2.5% in the previous year. Inflation doubled, from 2.6% in 1997 to 5.3% in 1998. Malaysia also experienced a marked decline of capital and total factor productivity (TFP) which dropped from an annual average rate of 2.4% in 1990-1995 to 0.9% in 1995-2000. Malaysia responded to the crisis by tightening

⁸ Trade Policy Review of Malaysia (1997), WTO

⁹ World development Indicators

financial policies temporarily but took up an expansionary policy starting with an interest rate cut by the end of 1998 followed by a decision of raising government spending. Further, Malaysia followed a temporary selective control on specific capital account transaction and ringgit was pegged at RM 3.80 per U.S. dollar. This was targeted to ease domestic financial market and providing a space for easing monetary fiscal and policies. By doing this, Malaysia managed to have some control on the monetary policy (Charette, 2006). The economy bounced back fast, with GDP growing by 6.1% in 1999 and by 8.3% in 2000.

This rebound can be attributed to rising private consumption and a revival in domestic investment as well as to strong export growth. Unemployment fell and inflation slowed down.¹⁰ Malaysia also took strong and bold steps of economic reform with a focus on improving corporate structure and governance mechanism and functioning of financial sector. In July 1998 National Economic Recovery Plan (NERP) was announced. Malaysia's trade with ASEAN members increased significantly due to decline in preferential tariff under ASEAN FTA. It is also important to note that Malaysia took strong liberal position as 'local content requirement' (LCR) abolished (took few years extra for automobile sector). Due to export duties on some products RCA (Table 16) has gone down in case of primary and low value labour intensive products. The incentive structure helped RCA of capital intensive products such as metals, mechanical and electrical machinery to increase. To develop the domestic value chain, export licensing has been continued. In 2005, almost 36% of tariff lines were having export license. The objective was to reduce the reliance on export-led growth and bring up a balance between domestic demand oriented and export oriented growth strategy.

Government continued with liberalization process. GDP growth rate reached to 7.1% in 2004, export grew by 21.8% and current account surplus reached to 12.6% of GDP in 2004. Keeping the exchanged rate pegged to the US dollar (until July 2005), Malaysia limited the scope for independent monetary policy. This was compensated by expansionary fiscal policy. During this time Malaysia focused more on regionalism and was actively pursuing various new trade agreements (with Australia, New Zealand, China, Japan, Korea Rep and India) and deepening the old ones such as APEC and ASEAN-FTA. FDI regime was fully liberalized in case of new manufacturing initiatives including greater flexibility for foreign equity participation in local firms with few exceptions. To maintain the competitiveness Malaysia chalked out a plan to revive its TFP to the pre-crisis level (Eighth Malaysia Plan). New sectors such as ICT, bio-technology, education have been identified for future growth. In post 2004, new areas such as tourism, health, Islamic finance etc. have been considered to promote service sector growth.

The growth engine of Malaysia slowed down due the sub-prime crisis. The government was prompt to take appropriate policies for macroeconomic adjustments. In 2009, it started to relax restrictions on foreign investment in services (100% foreign equity was allowed in 27

¹⁰ Trade Policy Review of Malaysia (WTO); 2001

services), including health and social services, tourism, transport, business services, and computer and related services. This reflects government's wisdom in developing new strategy in service sector apart from attention towards high tech manufacturing. Foreign investment restrictions in some financial services have also been relaxed. During 2005-08, Malaysia's trade dependence decreased (212% of trade-GDP ratio in 2005 and it reduced to 184% in 2008)¹¹. Its strategy of bringing balance between external and internal demand oriented growth pushed the gross national savings up, averaging about 37% of GDP. Its gross domestic investment averaged around 20% of GDP. The large and growing gap between gross national saving and gross domestic investment is reflected in a corresponding current account surplus, which was about 17.5% of GDP in 2008. Though, the economy was vulnerable in the after math of the sub-prime crisis, some of the inner strengths helped Malaysia to withstand the crisis. Healthy foreign exchange reserves, a relatively small external debt, as well as ongoing financial and corporate sector restructuring have been the positive factors in this regard. Malaysia remains externally competitive with its comparative advantage seemingly shifting from electrical goods and electronics manufacturing towards processed commodities and natural gas. This is very much clear from the Table 16 as we can see that high RCA of some of the commodities have come back. Despite a significant narrowing, the trade and current account balances remain in surplus. Trade surplus with USA continued to rise till 2007 and then fell but remain positive.

Indonesia

Indonesia was one of the worst affected countries during the crisis. Although Indonesia was insulated from the Thai currency turmoil in 1997 due to its sound macroeconomic fundamentals, concerns about the fragility of the financial institutions caused market sentiment to deteriorate. The collapse of the rupiah from 2400 to 13000/14000 per US Dollars in less than a year deteriorated the financial position of private corporations which held debt largely denominated in foreign currency. This transmitted the financial crisis to the real economy and thus upheaved the macroeconomic indicators.

During the first half of 1990s Indonesia was growing by 7.5-8%. Manufacturing was the engine of growth during this time, with an average growth rate of 12% per year as compared to 10% in the preceding decade. High domestic and foreign investments and exports were the main drivers of the economy. Increase in private consumption concomitant to increase in living standards and in private borrowing also contributed to economic growth from 1994 to 1996. However, domestic demand was affected when investment dropped and the banking and financial sectors collapsed during the crisis. Subsequently, Indonesia embraced a programme of measures, aimed at stabilizing the economy, restructuring its ailing banking system, and creating the conditions conducive to a more efficient, market-based allocation of resources in several key sectors. Before the crisis, Indonesia's major exports with high RCA (Table 16) were

¹¹ Trade Policy Review of Malaysia, WTO; 2010

animal and vegetable products, mineral fuels, rubber and plastics, footwear etc. Imports were growing faster than exports and overall current account deficit was more than 2% of GDP during 1991-1996. Major chunk of Indonesia's trade was being conducted with Asia, which accounted for nearly two-thirds of total exports and half of total imports. Japan remained Indonesia's largest individual trading partner, even though its share had been declining gradually.

The causes for crisis in Indonesia are complex. Because of currency turmoil in Thailand and Philippines, the business sentiments were down. The external factors such as withdrawal of international investors from the region and internal issues such as social and political uncertainty along with weak financial system and the investor's perception of higher risk have been largely responsible for the problem in Indonesia. There was an excessive optimism before the crisis and sudden fall in expectation led to a drop in investment. Once Thai baht and Philippine peso shifted to a floating system, the Indonesian rupiah became difficult to defend. In August 1997, Bank Indonesia floated the rupiah to limit speculative opportunities and to preserve the foreign reserves. Despite intervention of international financial institutions, the rupiah fell from 3000/dollar in mid-August 1997 to 17000 in January 1998, its lowest value. Indonesia took up a big challenge of economic reform. The National Economic and Financial Resilience Council was established to supervise implementation of the reform programme. Bank Indonesia was granted autonomy over the formulation and the implementation of monetary policy. The Indonesian Bank Restructuring Agency (IBRA), a financial body was formed for the restructuring of domestic banks. Investment regime has been made more open to attract more FDI. Tariff declined substantially from an average of 20% in 1994 to 9.5% in 1998. Besides the tariff reduction, Indonesia also undertook effort to remove all non-tariff barriers and export restrictions not justified on health, safety or environmental grounds. Accordingly, the number of tariff lines covered by import licensing requirements has fallen substantially, local content programmes have been gradually being phased out and restrictions on exports were also being removed. Indonesia focused on more outward growth in automobile exports. It also deregulated trade in the main agricultural commodities (except rice and soybeans), terminated production and trade monopolies in certain intermediate industries (cement, plywood, rattan), and reduced export taxes on key commodities (wood). Competition policy and regulatory framework was improved especially for manufacturing sector.

Indonesia's recovery was slower compared to Malaysia and Thailand. In 2001, GDP growth was 3.4%. There have been several unresolved economic issues leading to high economic reserves. There has been attempt for fiscal consolidation. Regarding the liberalisation drive some of Indonesia's unilateral move exceeded even its WTO commitment and obligation. In crucial areas such as anti-corruption, bankruptcy legislation, Indonesia improved its position with new and better regulation. Indonesia also initiated customs reforms and automation.

During 2000-2006, imports were growing much faster than exports and government made temporary attempts to restrict it in various ways. However, current account surplus as percentage of GDP was slowly eroding. Indonesia's main focus was on foreign investment. A National Investment Team was formed to work on the investment climate. During 2000-2006, average growth rate remained around 4.9% and the country experienced a slow but steady growth of savings and investment. However, import growth remained a concern.

Eventually, during sub-prime crisis, Indonesia's export growth became negative leading to very low current account surplus. In 2007 and 2008, economic growth was robust due to steep rise in savings and investment rate which saved the economy from the global crisis. Indonesia has made steady economic progress with an average annual real GDP growth rate of 5.9% during 2007-2012¹². GDP per capita almost doubled. In the Master plan of 2011-2025, Indonesia has focused on infrastructure development, sustainability and regional disparity within the economy. Its continuous focus on business environment helped the country to move up in various global rankings. During 2007-12, trade remains limited as a share of economic output, with merchandise exports accounting for between 21% and 26% of GDP and imports for between 15% and 18.5% of GDP. Petroleum and related products still remained major exportable products from Indonesia but as the global oil market plunged, Indonesia's export benefit eroded. During this time, the country had some export restrictions and taxes on raw materials, tighter import licensing requirements, point of entry restrictions on imports, ownership limitations on banks, etc. There has been discussion on re-orienting the domestic industrial policy towards developing local industries and moving up the value chain. It is generally argued that the learning from 1997 crisis helped Indonesia to manage its economy more effectively which eventually assisted the country to withstand the onslaught in 2008 (Tambunan, 2010).

Regarding the trade with USA, Indonesia's balance of trade improved continuously and stabilised after the subprime crisis at much higher level compared to 1997 (Figure A6).

Korea

Korean Republic or South Korea was one of the most dynamic economies in the world during the early 1990s. The average GDP growth during 1991-1996 was around 8.3%. In 1995, it reached even 9.6%. Both savings and investment rate were between 35-40% during this period. With a pre-planned programme Korean government carried out unilateral liberalisation of the economy. By 1996, the average tariff went below 10% (decreased from 24% in 1982). It also, focussed on deregulation, transparency, reduction of state control and dismantling of unnecessary regulations including quantitative restrictions. In early 1990s exports alone contributed 26% to its GDP. Korea focused on exports of electrical and electronic products

¹² Trade Policy Review of Indonesia, WTO; 2013

(over 20 per cent of total exports in 1995), motor vehicles, textiles, and telecommunications equipment. Meanwhile, exports of clothing and footwear slumped. Electrical machinery was also the main merchandise import in 1995, accounting for about 10 per cent of the total. Korean exports have always been dependent on large scale imports. The US remained the single largest market for Korea with a 25% share in exports followed by Japan and EU. In general, Korean exports basket has changed from the light engineering to heavy engineering and more towards electronics. The current account in general experienced a deficit and during 1991-1996. It was around 1.5% of GDP. There was a pressure to reform the financial sector as the economy was heading towards 'capital shortage' especially to provide incentives to industries. On the other hand, big firms were showing confidence but their debt was rising fast bringing vulnerability in the entire economy.

This crisis which broke into Thailand had a contagion effect in the region. In South Korea, it was triggered due to the poor performance and high debt ratios of certain large conglomerates (*chaebols*). There has been a marked depreciation in Korea's currency which was followed by a sharp fall in real GDP, and a tripling of unemployment. The crisis also exposed long-standing structural weaknesses in the economy. Instead of being protectionist, Korea showed its confidence in further liberalising, especially the foreign investment regime. As a result, economy experienced a remarkable recovery. In 1998, growth rebounded to 10.7%. The unemployment rate dropped to 4.8% by the end of 1999 from 8.6% in February 1999. In December 1997, Korea shifted from a managed to a free floating exchange rate system and since then has pursued exchange rate stabilization. The export gain (19% in 1998) due to sharp fall of won has been converted into an advantageous situation and the Central Bank intervened to smoothen the subsequent appreciation of the currency. The value of the currency has been kept below the pre-crisis level which enhanced the international competitiveness of Korea Rep. This led to a current account surplus. In 1998, it was 10.7% of GDP. The temporary import restriction also contributed to this surplus. Korea was able to build up its reserves from the export earning, foreign investment and disbursement of IMF loan. The trade-GDP ratio rose from 54.9% in 1993 to 84.4% in 1998 dropped back to 77.3% in 1999.

In 1999, we have observed that export share of mineral fuel, chemicals and iron & steel increased despite a shift of focus towards electronic goods and automobile. The chaebols dominated the manufacturing sector and their General Trading Companies (GTCs) dominated exports in electronics, automobiles and ships. Between 1995 and 1999, the share of the seven largest GTCs in total exports grew from 46.3% to 51.2%. In 1998, gold exports increased which was partly due to operations of financial institutions, which collected gold products (e.g. jewellery, coins), and refined and exported them so as to obtain foreign exchange. In the same period, the shares of textiles and clothing, transport equipment, non-electrical machinery, semi-manufactures and consumer goods in total imports fell as a consequence of a slowdown

in overall economic activity, the drawing down of inventories, and the won depreciation. Korea's high dependence on industrial exports increased from 90% of total merchandise exports in 2000 to 92% in 2002.

The recovery from the crisis was led by strong domestic demand, specifically private consumption and residential construction. In 2003, another economic downturn caused growth to be limited to 3.1%. The United States, Japan, and the EU continued to be Korea's main trading partners, while China and other regional economies have an increased share in Korea's trade,. The applied MFN rate averaged 12.8% in 2004; falling slightly, from 13.8% in 2000, showing some restraints in the liberalization process. A range of financial measures were intended to support trade and production, including R&D investment. These include tax incentives and provision of credit and equity, venture capital, largely channeled through various government-operated funds and state-owned financial institutions. SMEs were major beneficiaries, especially those engaged in information technology activities. Korea's real GDP growth averaged 4.8% between 2004 and 2007 as a result of the continued economic restructuring and trade liberalization which improved international competitiveness.

High concentration of exports shows some vulnerability in Korean tradable sector. Slowly, the share of manufactures in exports had declined, due to the drop in the share of office machines and telecommunications equipment and possibly due to the increasing competitiveness of Chinese products. On the other hand, the share of primary products (such as oil) rose, due to higher international prices.

Due to the global financial crisis of 2008, there has been a sharp fall in Korea's exports. As a result, real GDP growth had fallen to 2.8% in 2008 and 0.7% in 2009. Growth picked up with average of 3.9% during 2010-2013. It was noted that Korean economy is suffering from few imbalances such as high dependency on exports, more favourable treatment to manufacturing over services, labour productivity gap between manufacturing and services, more preferences towards chaebols and fast aging population. However, the country has been able to sustain the global recession due to prudent fiscal (modest surplus and low government debt) and trade policy. Investment rate during 2010-2013 was more than 30%. Current account surplus was 3.6% of GDP. Korea developed one of the best automated trade facilitation system over the years and promoted investment in special zones.

In case of trade with USA, before the crisis, Korea was having trade deficit. Exports of machinery, electronics, textiles and transportation and metals constituted 85% of exports to US. Imports from US primarily consisted of machinery/electronics (40%), transportation (9%), chemicals and allied industries (9%) and vegetable products (7%). Electronic integrated circuits dominated imports whereas aircrafts dominated the transportation imports. The chemical imports mostly consisted of organic compounds and other industrial chemicals.

[Table 16 to come about here]

5 Concluding Observations

The paper tried to establish a link between savings glut and trade strategies for select East Asian countries. The role of global imbalances in generating mispricing of risk in the US and fueling the sub-prime mortgage market crisis is well-known. As symptomatically global imbalance is associated with prolonged and sustained current account surplus in one group of countries (read the US) and current account deficit in another group of countries, it is also widely accepted that the trigger of such current account surplus has been different in different group of countries. At the risk of broad generalization three such groups are identified, viz., oil producers, China, and developing Asia. This paper looked into the behavior of current account surplus and forex reserves in four key countries in developing Asia, viz., Korea, Malaysia, Indonesia and Thailand. In deciphering the nature of current account surplus the paper emphasized the strategic changes in trade regime, which could have been shaped by their experience during the east Asian crisis when these countries had to face the humiliating situation of approaching the IMF and when IMF in its quest of applying the standard prescription of fiscal retrenchment have completely missed the nature of the crisis. Thus, insofar as the current account surplus of these four East Asian countries is concerned, from the vantage point, the global financial crisis can be seen, at least partially, as being caused by East Asian crisis. History does not provide us with the luxury of counter-factual, but if the story that we presented in the paper has any validity, the two crises separated by a decade and in different continents are indeed linked through providing an incentive for brewing up of global imbalance *via* an activist trade policy in select East Asian countries.

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Table 1: Global Current Account Balances, 1996 and 2003

(Billions of U.S. dollars)

Countries	1996	2003
Industrial	46.2	-342.3
<i>United States</i>	<i>-120.2</i>	<i>-530.7</i>
Japan	65.4	138.2
Euro Area	88.5	24.9
France	20.8	4.5
Germany	-13.4	55.1
Italy	39.6	-20.7
Spain	0.4	-23.6
Other	12.5	25.3
Australia	-15.8	-30.4
Canada	3.4	17.1
Switzerland	21.3	42.2
United Kingdom	-10.9	-30.5
Developing	-87.5	205.0
Asia	-40.8	148.3
China	7.2	45.9
Hong Kong	-2.6	17.0
Taiwan	10.9	29.3
<i>Korea</i>	<i>-23.1</i>	<i>11.9</i>
<i>Thailand</i>	<i>-14.4</i>	<i>8.0</i>
Latin America	-39.1	3.8
Argentina	-6.8	7.4
Brazil	-23.2	4.0
Mexico	-2.5	-8.7
Middle East and Africa	5.9	47.8
Europe and the former Soviet Union	-13.5	5.1
Statistical discrepancy	41.3	137.2

Source: Bernanke (2005)

Table 2: Average current account balances (% of World GDP)

	1996-2000	2001-2004	2005-2008
United States	-0.8	-1.4	-1.4
Peripheral Europe	-0.1	-0.4	-0.8
Rest of the World	-0.3	0.0	-0.3
China	0.1	0.1	0.6
Emerging Asia	0.1	0.2	0.2
Japan	0.3	0.3	0.3
Oil exporters	0.2	0.4	1.0
Core Europe	0.2	0.4	0.7
Discrepancy	-0.3	-0.3	0.4

Note:

1. EUR surplus: Austria, Belgium, Denmark, Finland, Germany, Luxembourg, Netherlands, Sweden, Switzerland.
2. EUR deficit: Greece, Ireland, Italy, Portugal, Spain, United Kingdom, Bulgaria, Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Romania, Slovak Republic, Turkey, Ukraine.
3. Emerging Asia: Hong Kong S.A.R. of China, Indonesia, Korea, Malaysia, Philippines, Singapore, Taiwan, Thailand.
4. Oil exporters: Algeria, Angola, Azerbaijan, Bahrain, Congo, Ecuador, Equatorial Guinea, Gabon, Iran, Kazakhstan, Kuwait, Libya, Nigeria, Norway, Oman, Qatar, Russia, Saudi Arabia, Sudan, Syria, Trinidad and Tobago, United Arab Emirates, Venezuela, Yemen.
5. Rest of the world: remaining countries.

Source: Blanchard & Milesi-Ferretti (2009)

Table 3: Global Current Account (“Flow”) Imbalances

(% of world GDP)

	United States	China	Germany	Japan	Europe surplus	Europe deficit	Other Asia	Oil exporters	Rest of world	Discrepancy
1980	0.02		-0.13	-0.10	0.05	-0.56	-0.11	0.85	-0.51	-0.49
1990	-0.35		0.20	0.20	0.12	-0.48	-0.03	0.13	-0.27	-0.49
1991	0.01		-0.10	0.29	0.11	-0.38	-0.02	-0.23	-0.27	-0.60
1992	-0.21		-0.09	0.45	0.15	-0.39	0.00	-0.09	-0.30	-0.48
1993	-0.33		-0.07	0.52	0.29	-0.19	0.01	-0.07	-0.36	-0.20
1994	-0.45		-0.11	0.48	0.29	-0.08	-0.04	0.02	-0.38	-0.27
1995	-0.37		-0.10	0.36	0.37	-0.11	-0.12	0.04	-0.30	-0.23
1996	-0.40		-0.05	0.22	0.43	-0.14	-0.12	0.18	-0.29	-0.17
1997	-0.45	0.13	-0.03	0.31	0.50	-0.14	-0.06	0.10	-0.39	-0.03
1998	-0.70	0.10	-0.05	0.37	0.44	-0.18	0.29	-0.11	-0.45	-0.29
1999	-0.93	0.07	-0.10	0.36	0.46	-0.34	0.24	0.18	-0.31	-0.37
2000	-1.25	0.06	-0.10	0.40	0.29	-0.39	0.18	0.55	-0.22	-0.48
2001	-1.21	0.05	-0.02	0.26	0.32	-0.32	0.20	0.35	-0.17	-0.53
2002	-1.35	0.10	0.12	0.32	0.30	-0.32	0.24	0.28	-0.08	-0.39
2003	-1.37	0.11	0.09	0.37	0.37	-0.36	0.32	0.37	-0.07	-0.17
2004	-1.47	0.16	0.30	0.42	0.41	-0.48	0.25	0.51	-0.06	0.04
2005	-1.60	0.28	0.29	0.37	0.35	-0.58	0.19	0.91	-0.10	0.11
2006	-1.60	0.46	0.34	0.35	0.39	-0.77	0.25	1.05	-0.11	0.37
2007	-1.26	0.62	0.42	0.37	0.32	-0.88	0.29	0.82	-0.24	0.46
2008	-1.10	0.68	0.35	0.23	0.21	-0.94	0.17	1.06	-0.40	0.25
2009	-0.64	0.41	0.34	0.25	0.23	-0.53	0.28	0.31	-0.34	0.30
2010	-0.69	0.37	0.30	0.34	0.34	-0.59	0.22	0.57	-0.39	0.47
2011	-0.64	0.19	0.32	0.18	0.26	-0.55	0.15	0.99	-0.43	0.47
2012	-0.63	0.30	0.35	0.08	0.30	-0.39	0.09	0.93	-0.54	0.47
2013	-0.54	0.24	0.34	0.05	0.42	-0.33	0.21	0.71	-0.55	0.55

Notes:

1. Oil exporters: Algeria, Angola, Azerbaijan, Bahrain, Bolivia, Brunei, Chad, Congo, Ecuador, Equatorial Guinea, Gabon, Iran, Iraq, Kazakhstan, Kuwait, Libya, Nigeria, Norway, Oman, Qatar, Russia, Saudi Arabia, South Sudan, Timor-Leste, Trinidad and Tobago, Turkmenistan, United Arab Emirates, Venezuela, Yemen.
2. Other Asia: Hong Kong SAR, India, Indonesia, Korea, Malaysia, Philippines, Singapore, Taiwan, Thailand.
3. European economies (excluding Germany and Norway) are sorted into surplus or deficit each year by the signs (positive or negative, respectively) of their current account balances

Source: World Economic Outlook, IMF, October 2014.

Table 4: Select Items in BoP of Four South Asian Economies (US \$ billion)

	Indonesia					Thailand					Malaysia					South Korea				
	CA	FA	FDI	FPI	RES	CA	FA	FDI	FPI	RES	CA	FA	FDI	FPI	RES	CA	FA	FDI	FPI	RES
1991	-4.4	-2.2	-1.1	0.1	9.3	-7.6	-5.9	-2.3	0.0	17.5	-4.2	0.2	-2.3	0.3	10.9	-7.6	-3.5	0.1	-0.2	13.7
1992	-3.1	-4.5	-1.5	0.0	10.4	-6.3	-7.1	-1.8	0.1	20.4	-2.2	-4.4	-4.0	-0.2	17.2	-2.4	-7.2	0.1	-3.1	17.1
1993	-2.3	-4.4	-1.8	0.1	11.3	-6.4	-6.5	-2.0	-0.9	24.5	-3.0	-2.2	-5.2	1.1	27.2	2.0	-1.6	0.4	-6.0	20.2
1994	-3.0	-4.9	-1.6	-1.8	12.1	-8.1	-6.6	-1.6	-5.5	29.3	-4.5	0.6	-5.0	0.7	25.4	-4.5	0.5	0.6	-10.1	25.6
1995	-6.8	-3.0	-1.5	-3.9	13.7	-13.6	-8.0	-0.9	-2.7	36.0	-8.6	-4.4	-4.3	1.6	23.8	-9.8	-6.3	1.5	-6.2	32.7
1996	-7.3	-8.7	-3.7	-4.1	18.3	-14.7	-14.7	-1.2	-4.1	37.7	-4.5	-9.4	-4.2	0.4	27.0	-23.8	-11.5	1.4	-11.7	34.0
1997	-3.8	-6.4	-5.6	-5.0	16.6	-3.0	-17.3	-1.4	-3.7	26.2	-5.9	-7.0	-5.1	0.3	20.8	-10.3	-23.5	2.2	-15.1	20.4
1998	4.0	-6.9	-4.5	2.6	22.7	14.2	-6.2	-3.3	-4.5	28.8	9.5	-6.1	-5.1	0.2	25.6	40.1	-17.8	1.1	-14.4	52.0
1999	5.8	6.2	0.2	1.9	26.4	12.4	11.5	-7.2	-0.4	34.1	12.6	12.8	-2.2	-0.3	30.6	21.6	34.0	-1.8	1.2	74.0
2000	8.0	7.9	1.9	1.8	28.5	9.3	12.5	-5.8	0.1	32.0	8.5	11.3	-2.5	1.0	28.3	10.4	18.4	-6.8	-9.2	96.1
2001	6.9	11.8	4.6	1.9	27.2	5.1	8.6	-3.4	0.7	32.4	7.3	5.3	-1.8	2.5	29.5	2.7	9.6	-6.7	-12.2	102.8
2002	7.8	7.6	3.0	0.2	31.0	4.7	4.8	-4.6	0.9	38.0	7.2	4.9	-0.3	0.4	33.4	4.7	8.7	-3.8	-6.7	121.3
2003	8.1	6.1	-0.1	-1.2	35.0	4.8	6.1	-3.2	1.6	41.1	13.4	6.9	-1.3	1.4	43.8	11.9	6.2	-2.0	-0.3	155.3
2004	5.3	4.6	0.6	-2.3	35.0	2.8	4.9	-4.6	0.1	48.7	15.1	13.5	-1.1	-1.0	65.9	29.7	16.6	-2.0	-17.3	199.0
2005	1.6	-1.5	1.5	-4.4	33.1	-7.6	2.1	-5.8	-3.1	50.7	20.7	16.9	-2.6	-8.4	69.9	12.7	34.3	-6.1	-6.6	210.3
2006	9.5	0.4	-5.3	-4.2	41.1	2.3	-2.5	-7.7	-6.5	65.3	26.2	13.4	-1.0	3.7	82.1	3.6	18.8	-5.3	3.5	238.9
2007	6.8	11.8	-2.2	-4.3	55.0	15.6	5.4	-7.9	-5.0	85.2	29.7	18.7	-0.1	-3.4	101.0	11.8	12.6	3.6	23.4	262.2
2008	0.1	9.7	-2.3	-5.6	49.6	0.9	17.3	-7.1	3.9	108.7	39.4	24.5	2.7	-5.4	91.1	3.2	17.5	13.2	27.1	201.1
2009	10.6	0.2	-3.4	-1.8	63.6	20.7	7.5	-6.2	0.0	135.5	31.4	30.5	7.8	24.0	95.4	33.6	-6.6	8.4	2.4	269.9
2010	5.3	7.8	-2.6	-10.3	92.9	10.0	22.7	-0.4	0.4	167.5	25.7	26.5	6.6	0.3	104.9	28.9	27.2	8.4	-51.2	291.5
2011	1.7	3.9	-11.1	-13.2	106.5	8.9	7.7	-6.6	-4.9	167.4	32.5	5.6	4.5	-15.0	131.8	18.7	23.2	18.8	-42.4	304.3
2012	-24.4	-1.8	-11.5	-3.8	108.8	-1.5	9.5	4.7	-6.1	173.3	16.2	23.5	3.0	-8.7	137.8	50.8	24.3	19.9	-13.1	323.2
2013	-29.1	-24.6	-13.7	-9.2	96.4	-5.2	-7.5	1.3	-3.4	161.3	11.3	8.8	8.0	-20.7	133.4	81.1	51.6	21.1	-6.7	341.6
2014	-27.5	-29.3	-12.2	-10.9	108.8	15.4	-2.4	-3.6	4.8	151.3	14.5	10.8	2.1	0.8	114.6	84.4	80.1	15.6	9.3	358.8
2015	-17.8	-30.1	-15.9	-26.1	103.3	34.8	15.3	0.6	12.1	151.3	8.7	13.1	5.4	11.9	94.0	105.9	89.3	18.8	30.6	363.1

Legends: CA – Current Account Balance; FA: Financial Account balance; FDI: Foreign Direct Investment (net); FPI: Foreign Portfolio Investment (Net); RES: Total reserves minus gold
Source: World Development Indicator, World Bank and World Economic Outlook, IMF, various issues.

Table 5: Blood Bath in East Asian Financial Markets during 1997			
Country	Changes in Stock Market	Currency Depreciation	Forex Reserves
Korea	-55%	58%	-49%
Indonesia	-46%	47%	-11%
Malaysia	-73%	33%	-27%
Thailand	-80%	41%	-23%

Source: IMF, World Economic Outlook, and Bloomberg

Table 6: GDP Growth in Select East Asian Economies								
Country	1995	1996	1997	1998	1999	2000	2001	2002
Indonesia	8.2	7.8	4.7	-13.1	0.8	5.0	3.6	4.5
Korea	9.6	7.6	5.9	-5.5	11.3	8.9	4.5	7.4
Malaysia	9.8	10.0	7.3	-7.4	6.1	8.7	0.5	5.4
Thailand	8.1	5.7	-2.8	-7.6	4.6	4.5	3.4	6.1

Source: IMF, World Economic Outlook Database, April 2016.

Table 7: Assistance to select East Asian countries during the East Asian Crisis

(US \$ billion)

	IMF	Other Official	Total (% of preceding year's GDP)
Indonesia	10	18	28 (12.6%)
Korea	21	14	35 (6.7%)
Thailand	4	13.2	17.2 (9.5%)

Source: Takagi (2010)

Table 8: Select Fiscal Indicators

	Government Net Lending / Borrowing				Government Primary Net lending / Borrowing				Government Gross Debt			
	Indonesia	Korea	Malaysia	Thailand	Indonesia	Korea	Malaysia	Thailand	Indonesia	Korea	Malaysia	Thailand
1991	<i>n/a</i>	<i>n/a</i>	-0.8	<i>n/a</i>	<i>n/a</i>	<i>n/a</i>	2.9	<i>n/a</i>	<i>n/a</i>	12.5	73.3	<i>n/a</i>
1992	<i>n/a</i>	<i>n/a</i>	-0.7	<i>n/a</i>	<i>n/a</i>	<i>n/a</i>	1.8	<i>n/a</i>	<i>n/a</i>	12.2	64.4	<i>n/a</i>
1993	-0.7	<i>n/a</i>	1.5	<i>n/a</i>	1.1	<i>n/a</i>	4.1	<i>n/a</i>	<i>n/a</i>	11.4	55.7	<i>n/a</i>
1994	0.0	<i>n/a</i>	3.9	<i>n/a</i>	1.5	<i>n/a</i>	5.3	<i>n/a</i>	<i>n/a</i>	10.1	47.6	<i>n/a</i>
1995	0.7	2.3	1.7	3.1	2.1	2.7	4.0	<i>n/a</i>	<i>n/a</i>	8.9	41.6	<i>n/a</i>
1996	1.1	2.4	2.0	2.7	2.2	2.8	4.1	<i>n/a</i>	<i>n/a</i>	8.2	35.7	15.2
1997	-1.1	2.4	4.0	-1.7	0.5	2.9	5.7	<i>n/a</i>	<i>n/a</i>	10.2	32.3	40.5
1998	-2.1	1.2	-0.7	-6.3	1.0	1.8	1.1	<i>n/a</i>	<i>n/a</i>	14.7	36.6	49.9
1999	-1.1	1.2	-3.3	-9.0	2.5	2.2	-1.6	<i>n/a</i>	<i>n/a</i>	16.7	37.4	56.6
2000	-1.9	4.2	-6.6	-1.8	1.4	5.2	-5.0	-0.8	87.4	17.1	35.3	57.8
2001	-1.8	2.6	-4.8	-1.8	3.1	3.6	-3.2	-0.7	73.7	17.7	41.4	57.5
2002	-0.6	3.4	-4.3	-6.7	3.8	4.3	-2.6	-5.5	62.3	17.6	43.1	55.1
2003	-1.1	1.6	-5.0	2.1	1.9	2.4	-4.9	3.1	55.6	20.4	45.1	50.7
2004	-0.3	0.1	-3.7	1.2	2.2	1.1	-3.2	2.4	51.3	23.3	45.7	49.5
2005	0.4	0.9	-3.0	1.5	2.6	2.0	-1.5	2.7	42.6	27.0	42.7	47.4
2006	0.4	1.1	-2.7	2.2	2.6	2.3	-1.7	3.5	35.8	29.3	41.5	42.0
2007	-0.9	2.2	-2.7	0.2	0.9	1.4	-2.0	1.2	32.3	28.7	41.2	38.3
2008	0.1	1.5	-3.6	0.1	1.7	1.2	-2.1	1.0	30.3	28.0	41.2	37.3
2009	-1.6	0.0	-6.7	-3.2	-0.1	-0.7	-5.1	-2.4	26.5	31.2	52.8	45.2
2010	-1.2	1.5	-4.7	-0.8	0.0	0.8	-3.0	-0.1	24.5	31.0	53.5	42.6
2011	-0.6	1.7	-3.7	-0.6	0.6	0.9	-2.1	0.3	23.1	31.7	54.2	41.7
2012	-1.6	1.6	-3.9	-1.8	-0.4	0.8	-2.1	-0.9	23.0	32.3	56.2	45.4
2013	-2.0	0.7	-4.4	-0.2	-0.8	-0.2	-2.5	0.6	24.9	33.9	57.7	45.9
2014	-2.2	0.3	-3.7	-1.8	-0.9	-0.4	-1.7	-0.9	25.0	35.7	57.0	47.2
2015	-2.3	0.3	-3.5	-1.9	-1.0	-0.2	-1.5	-1.1	25.9	36.9	56.7	47.5

Source: World Economic Outlook Database, April 2016, IMF.

Table 9: World Export and Import of Select Countries (US\$ Billion)

	THAILAND		INDONESIA		MALAYSIA		KOREA REP	
	Export	Import	Export	Import	Export	Import	Export	Import
1989	25.23	27.08	24.64	21.72	27.73	25.37	70.98	66.23
1990	29.13	35.55	28.98	27.16	32.78	31.88	73.74	76.57
1991	35.33	41.76	33.06	30.89	38.24	40.04	81.15	89.34
1992	41.21	45.68	38.8	34.72	44.95	44.14	87.72	91.54
1993	47.45	52.75	42.27	37.56	52.79	52.86	96.07	94.65
1994	56.09	63.08	46.9	44.87	66.4	67.59	112.79	115.94
1995	70.31	81.63	53.19	55.88	83.58	87.08	149.08	154.73
1996	71.42	82.83	58.72	60.12	92.36	90.96	115.37	174.75
1997	72.44	70.31	60.11	60.7	93.45	92.53	167.24	170.35
1998	65.86	48.09	50.56	41.25	83.54	67.66	159.47	115.01
1999	71.49	56.07	49.72	38.4	96.02	76.19	173.99	144.21
2000	81.95	71.36	67.62	50.26	112.37	94.35	196.62	184.99
2001	76.09	68.59	62.63	49.36	102.44	86.25	174.48	166.2
2002	81.45	72.96	63.96	51.64	109.22	91.82	187.74	178.61
2003	93.69	84.01	71.55	54.32	117.85	96.15	222.55	208.86
2004	114.06	106.23	82.74	70.74	143.93	118.51	292.91	263.62
2005	129.74	131.71	97.39	85.53	162.05	130.55	330.6	308.73
2006	152.51	145.29	113.14	93.41	182.52	147.06	376.05	368.14
2007	181.34	160.63	127.23	109.76	205.49	167.03	439.92	427.27
2008	208.37	201.38	152.1	146.71	229.83	178.25	500.72	500.83
2009	180.25	152.44	130.36	115.22	184.89	143.89	428.87	386.6
2010	227.34	203.64	174.32	162.44	230.99	188.98	540.9	506.04
2011	265.97	250.29	223.00	211.06	264.98	217.46	670.34	652.37
2012	274.40	270.25	212.99	226.68	265.79	229.62	688.93	654.76
2013	284.89	272.17	206.17	223.5	255.79	226.74	703.48	637.43

Source: World Bank database

Table 10: Global Capital Flows ^a				
(Per cent of GDP, annual average)				
	1980–1989	1990–1999	2000–2007	2008–2012
Foreign direct investment	1.0	1.5	2.9	2.9
Portfolio Investment	1.2	2.3	4.2	1.4
Other Investment ^b	2.7	1.9	5.0	0.4
Reserves ^c	0.8	0.5	1.2	1.5
Total	5.7	6.2	13.3	6.2

Notes:

- a) Gross capital outflows; excluding financial derivatives;
- b) Includes flows related to international banking transactions
- c) Estimated as a residual prior to 1994, assuming flows resulting from financial derivatives transactions are minimal during that period

Source: James, Elliott., Kate McLoughlin and Ewan Rankin (2014): “Cross-border Capital Flows since the Global Financial Crisis”, *Reserve Bank of Australia Bulletin*.

Table 11: Surge, Stop, Flight, and Retrenchment Episodes of Capital Flows to Four Asian Countries (1980 to 2009)								
	Surges		Stops		Flight		Retrenchment	
	Start	End	Start	End	Start	End	Start	End
Indonesia	1990q3	1991q2	1993q2	1993q3	1993q3	1994q3	1997q2	1998q3
	1995q2	1996q3	1998q3	2002q3	2002q3	2003q2	2003q3	2003q4
	2005q4	2006q1	2006q4	2007q1	2004q1	2005q1	2006q3	2007q1
			2009q1	2009q3	2005q3	2006q2		
Korea	1994q3	1995q4	1997q2	1998q3	1994q2	1995q4	1997q3	1999q1
			2008q1	2009q2	2002q4	2003q3	2005q1	2005q3
					2006q1	2007q4	2008q3	2009q3
	2003q3	2005q1	1998q4	1999q2	2006q3	2007q4	1998q4	1999q2
	2006q2	2007q4	2005q3	2005q4			2005q3	2006q1
			2008q3	2009q3			2008q3	2009q2
Malaysia			2005q4	2006q3	2006q2	2007q4	2008q3	2009q2
			2008q3	2009q2				
Thailand	1987q4	1990q3	1982q1	1982q2	1983q2	1983q3	1984q2	1984q4
	1995q2	1996q1	1992q1	1992q4	1985q2	1986q1	1986q4	1988q4
	2004q3	2006q1	2007q1	2007q4	1993q2	1994q2	1994q4	1995q1
			2008q3	2009q3	2005q1	2006q1	1996q3	1997q2
							2008q1	2009q3

Source: Forbes, Kristin J., and Francis E. Warnock (2012): “Capital Flow Waves: Surges, Stops, Flight, and Retrenchment”, *Journal of International Economics*, 88(2): 235-51.

Table 12: Exchange Rate Arrangements immediately after the East Asian Crisis		
Country	Period	Exchange Rate Arrangement
Indonesia	November 1978-June 1997	Managed Floating
	<i>July 1997- December 2000</i>	<i>Independently Floating</i>
Korea	March 1980-October 1997	Managed Floating
	<i>November 1997- December 2000</i>	<i>Independently Floating</i>
Malaysia	January 1986-February 1990	Limited Flexibility
	March 1990-November 1992	Fixed
	December 1992-September 1998	Managed Floating
	<i>September 1998- December 2000</i>	<i>Pegged Arrangement</i>
Thailand	January 1970-June 1997	Fixed
	<i>July 1997- December 2000</i>	<i>Independently Floating</i>

Source: Hernández, Leonardo and Peter J. Montiel (2001): "Post-Crisis Exchange Rate Policy In Five Asian Countries: Filling in the Hollow Middle", IMF Working Paper.

Table 13: Stock of Forex Reserves as on 31 December 2008 (USD billion)		
No.	Country	Forex Reserves
1	Korea	200
2	Thailand	108
3	Malaysia	91
4	Indonesia	49

Source: Park, Donghyun and Gemma B. Estrada (2009): "Are Developing Asia's Foreign Exchange Reserves Excessive? An Empirical Examination", ADB Economics Working Paper Series No. 170

Table 14: Vulnerability Indicators in Select East Asian Economies

		Indonesia	Korea	Malaysia	Thailand
Current Account Balance (% of GDP)	1992-1996	-2.2	-1.6	-6.0	-6.3
	2002-2006	2.2	1.9	12.9	1.2
M2 Growth Rate (% growth per year)	1992-1996	23.8	16.3	17	15.9
	2002-2006	11.1	4.5	9.8	5.5
Non-bank private sector cross-border borrowing (% of reserves)	1997 Q2	194.0	92.9	61.6	131.1
	2006 Q3	56	20	24.9	18.6

Source: Compiled from, *Indonesia: 2007 Article IV Consultation: Staff Report*, IMF

Table 15: Period Wise Growth, Investment and Current Account Situation of Select Countries

	(Avg) GDP Growth rate (%)	(Avg) Investment as % of GDP	(Avg) FDI as % of GDP*	(Avg) Export Growth Rate (%)**	(Avg) Import Growth Rate (%)**	(Avg) Current Account as % of GDP
Thailand						
1991-1996	8.1	41.2	1.46	11.3	11.5	-6.8
1997	-1.4	33.7	2.59	7.2	-11.3	-2.0
1998	-10.5	20.4	6.43	8.2	-21.6	12.7
1999	4.4	20.5	4.82	9.0	10.5	10.1
2000-2006	5.1	26.0	3.51	9.1	10.5	2.5
2007	5.0	26.4	3.28	7.8	4.4	6.3
2008	2.5	29.1	2.94	5.1	8.9	0.8
2009	-2.3	21.2	2.28	-12.5	-21.5	8.3
2010-13	4.3	28.0	3.00	7.9	10.9	1.2
Malaysia						
1991-1996	9.6	39.8	6.66	14.6	16.1	-6.1
1997	7.3	43.0	5.14	5.3	6.3	-5.9
1998	-7.4	26.7	3.00	-0.3	-24.3	13.2
1999	6.1	22.4	4.92	13.7	11.7	15.9
2000-2006	5.4	23.9	3.10	8.5	9.0	11.3
2007	6.3	23.4	4.69	-3.9	3.3	15.4
2008	4.8	21.5	3.28	-7.3	-3.9	17.1
2009	-1.5	17.8	0.06	-10.5	-21.9	15.5
2010-13	5.8	24.6	3.92	2.0	5.9	8.1
Indonesia						
1991-1996	7.5	35.0	1.63	8.7	11.8	-2.1
1997	4.7	32.2	2.17	13.4	0.7	-1.5
1998	-13.1	19.2	-0.25	15.2	-12.5	3.5
1999	0.8	13.6	-1.33	-25.7	-24.1	3.4
2000-2006	4.9	26.8	0.03	1.9	7.0	2.9
2007	6.3	28.7	1.60	-4.5	5.8	1.4
2008	7.4	33.0	1.83	-3.1	20.6	0.0
2009	4.7	31.2	0.90	8.8	-10.0	1.8
2010-13	6.0	33.7	2.30	3.5	12.2	-1.2
Korea Rep						
1991-1996	8.3	39.1	0.26	14.3	15.3	-1.5
1997	5.9	37.4	0.51	18.8	2.5	-1.8
1998	-5.5	27.8	1.44	14.3	-24.0	10.7
1999	11.3	30.9	1.92	13.1	24.9	4.5
2000-2006	5.4	32.1	1.34	11.8	10.9	1.5
2007	5.5	32.6	0.79	12.7	11.6	1.1
2008	2.8	33.0	1.12	7.5	3.2	0.3
2009	0.7	28.5	1.00	-0.3	-6.8	3.7
2010-13	3.9	31.2	0.86	9.3	8.9	3.6

* Net inflow; ** includes goods and services; Source: World Development Indicators

Table 16: Change of Revealed Comparative Advantage (RCA) of Exportable products in the Select Countries

Countries	1995		2006		2013	
	High RCA	Low RCA	High RCA	Low RCA	High RCA	Low RCA
Thailand	Footwear Animal Plasti-Rub FoodProd Text-Cloth Hides-Skin Vegetable Stone-Glas Mach-Elec	Minerals Wood Metals Chemicals Transport Fuels	Plasti-Rub FoodProd Stone-Glas Vegetable Transport Mach-Elec	Animal Text-Cloth Wood Metals Hides-Skin Chemicals Footwear Fuels Minerals	Plasti-Rub Food-Prod Stone-Glas Vegetable Transport Mach-Elec	Animal Text-Cloth Wood Metals Hides-Skin Chemicals Footwear Fuels Minerals
Indonesia	Fuels Minerals Footwear Wood Text-Cloth Vegetable Animal Plasti-Rub	HidesSkin Food-Prod Stone-Glas Metals Chemicals Mach-Elec Transport	Minerals Vegetable Wood Footwear Fuels Text-Cloth Plasti-Rub Animal	Metals Food-Prod Stone-Glas Hides-Skin Chemicals Mach-Elec Transport	Vegetable Footwear Minerals Wood Fuels Text-Cloth PlastiRub Food-Prod	Animal Metals Chemicals Hides-Skin Mach-Elec Stone-Glas Transport
Malaysia	Vegetable Mach-Elec Wood Fuels Plasti-Rub	Text-Cloth Stone-Glas Food-Prod Metals Animal Chemicals Minerals Transport Footwear Hides-Skin	Vegetable Mach-Elec Plasti-Rub Wood Fuels	Food-Prod Stone-Glas Metals Chemicals Text-Cloth Animal Footwear Minerals Transport Hides-Skin	Vegetable Mach-Elec Plasti-Rub Fuels Wood	FoodProd Metals Chemicals Stone-Glas Text-Cloth Animal Minerals Transport Footwear Hides-Skin
Korea	Hides-Skin Text-Cloth Mach-Elec Footwear Plasti-Rub Metals Transport	Stone-Glas Chemicals Animal Fuels Miscellan FoodProd Wood Minerals Vegetable	Transport Mach-Elec Plasti-Rub Metals	Text-Cloth Chemicals Hides-Skin Fuels Stone-Glas Footwear Wood FoodProd Animal Minerals Vegetable	Transport Plasti-Rub Mach-Elec Metals	Chemicals Text-Cloth Fuels Hides-Skin Wood FoodProd Stone-Glas Animal Footwear Minerals Vegetable

Note: Products in Bold experienced a rise in RCA over the previous reported year; i.e 2006 over 1995 and 2013 over 2006. Low or High RCA is defined as RCA value less or greater than 1.

Source: Author's calculation from WITS Database

Figure 1: Current Account in Select East Asian Economies

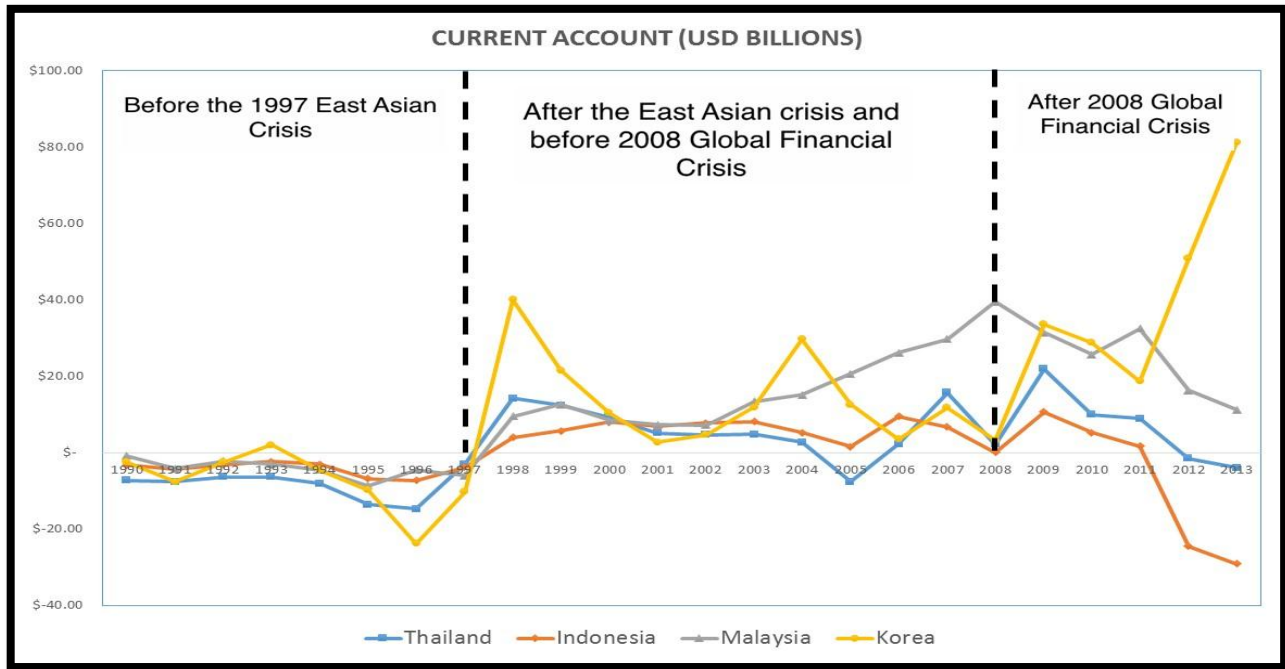


Figure 2: Daily Exchange Rate of Four South Asian Countries (Continued)

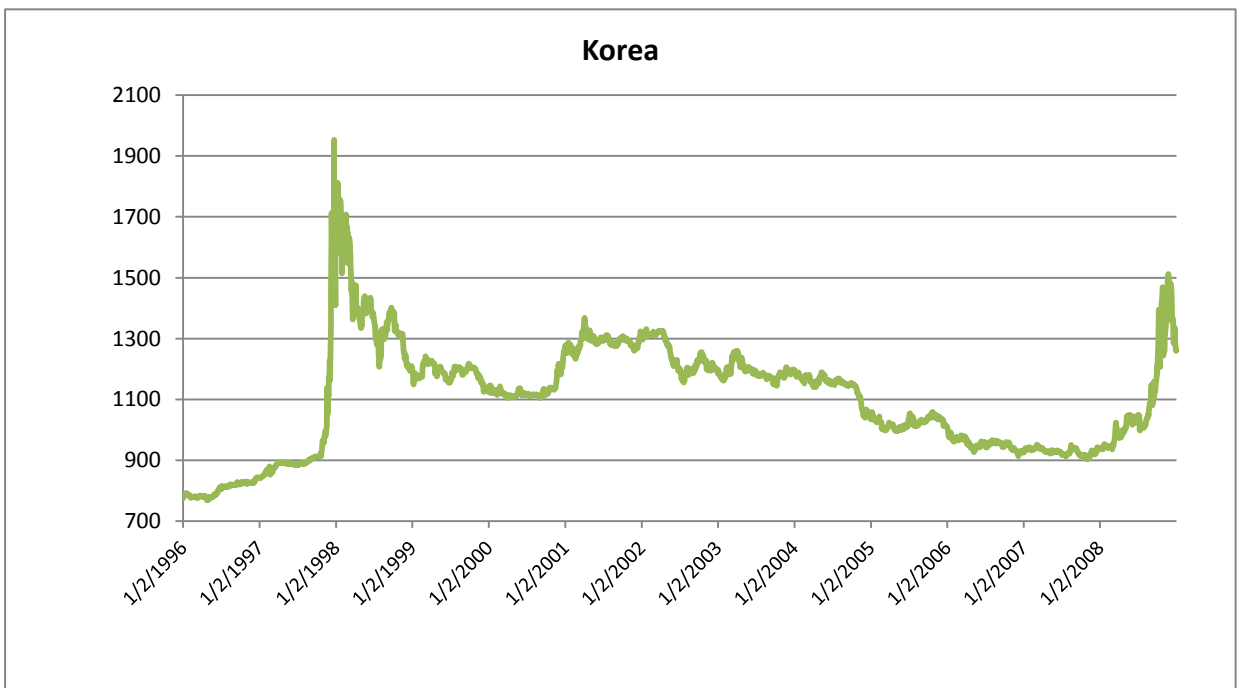
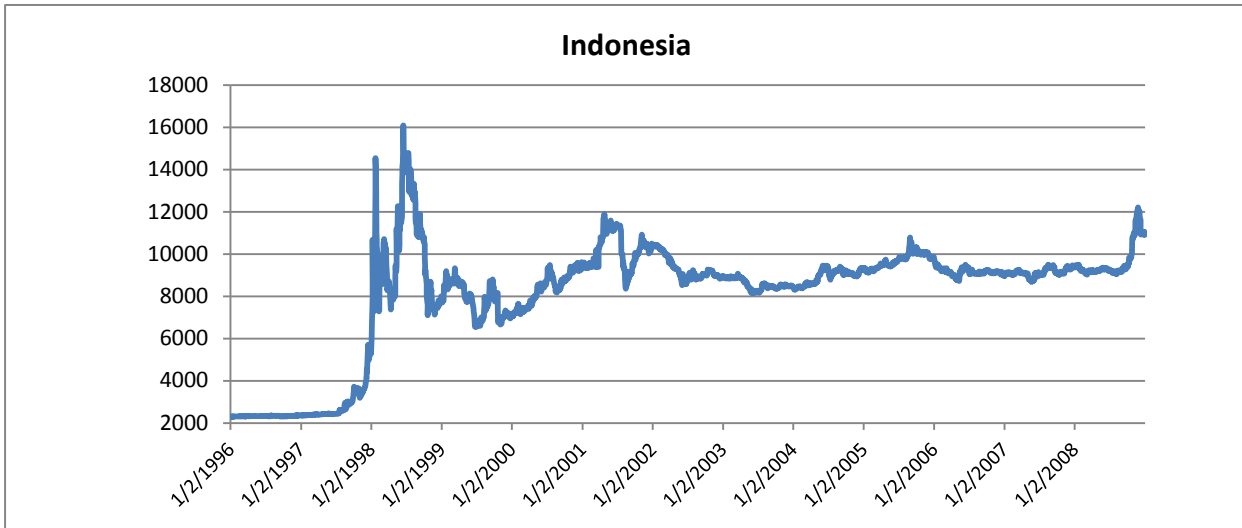
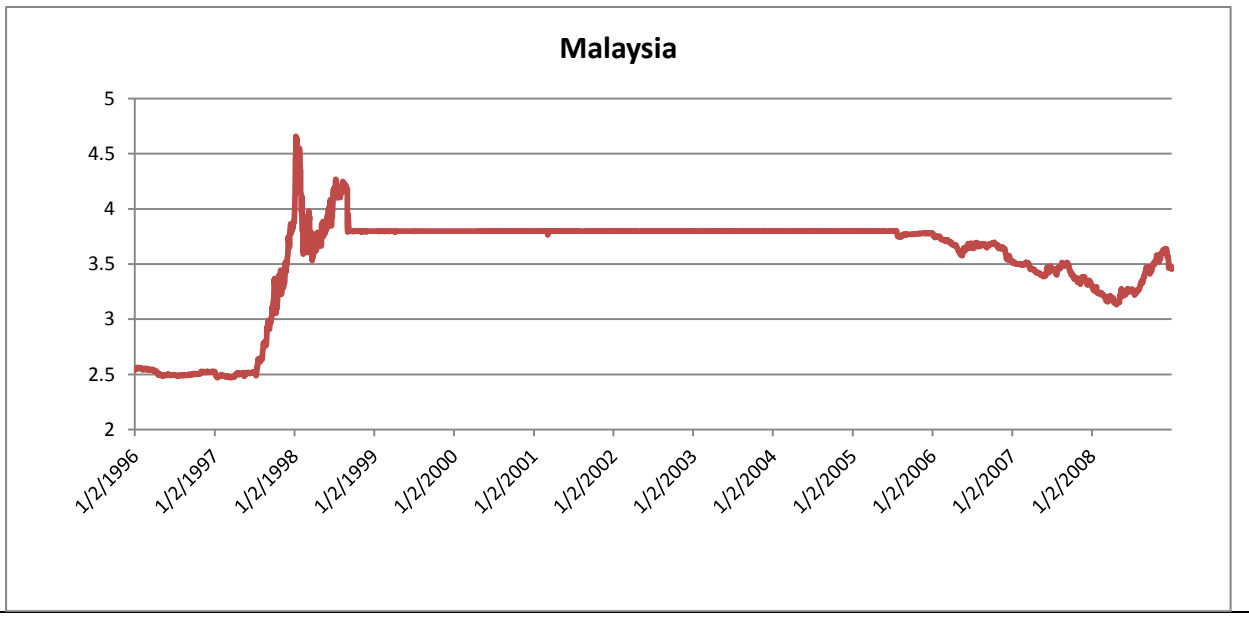
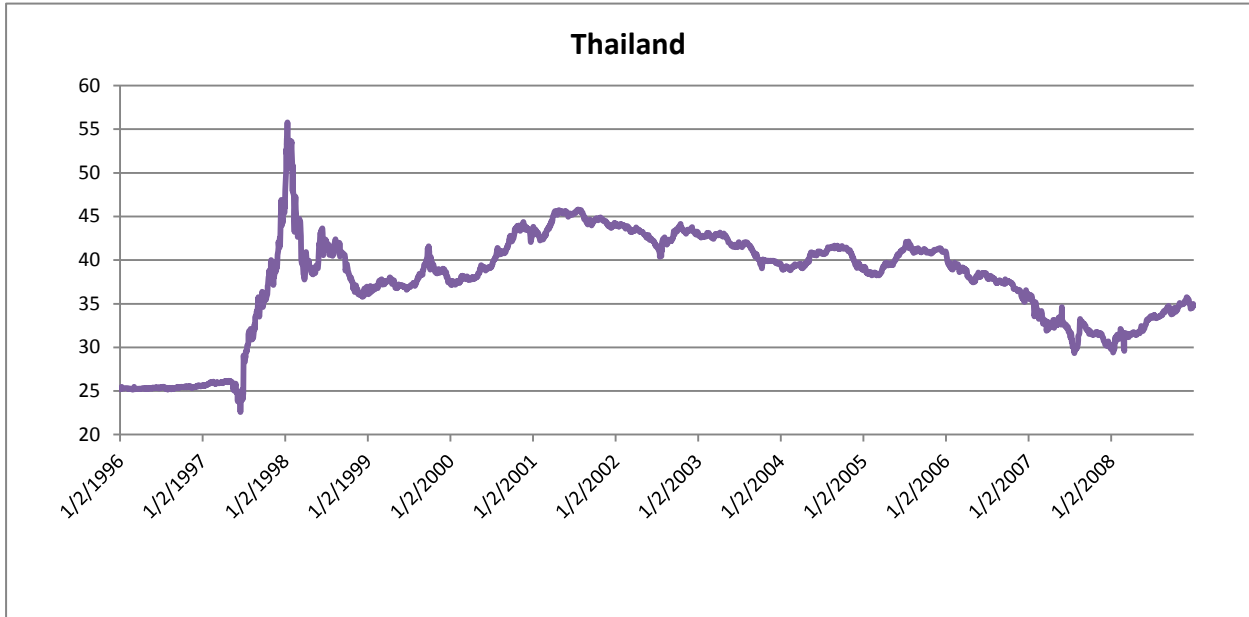


Figure 2: Daily Exchange Rate of Four South Asian Countries (Concluded)



Annex 1

Figure A1: Thailand's Trade with the World (US\$ Billion)

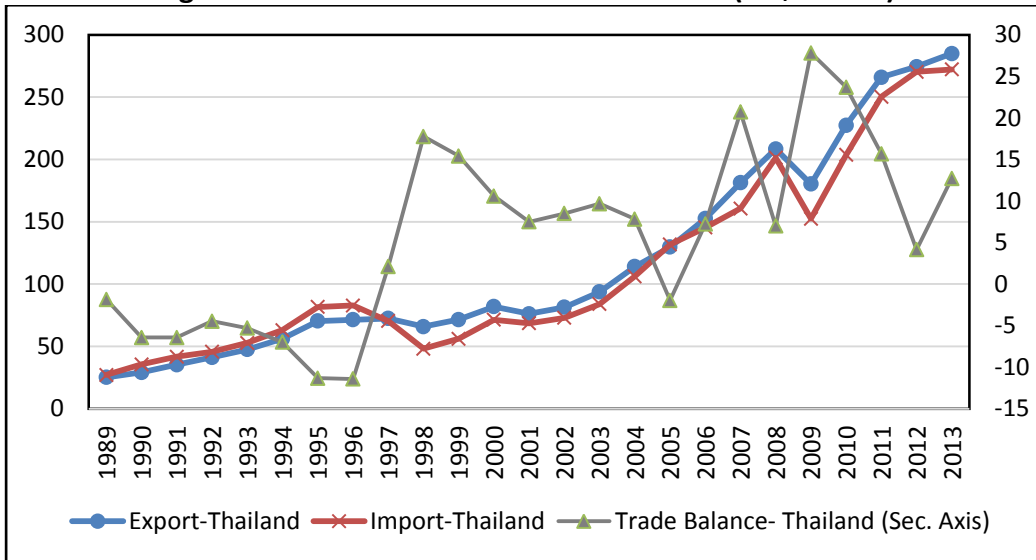


Figure A2: Thailand's Trade with USA

(US\$ Billion)

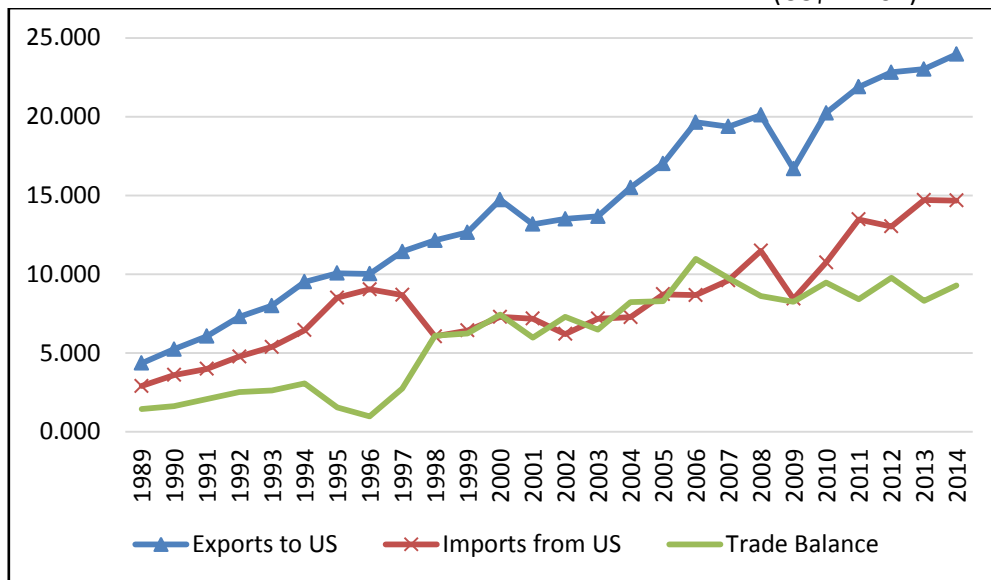


Figure A3: Malaysia's Trade with the World (US\$ Billion)

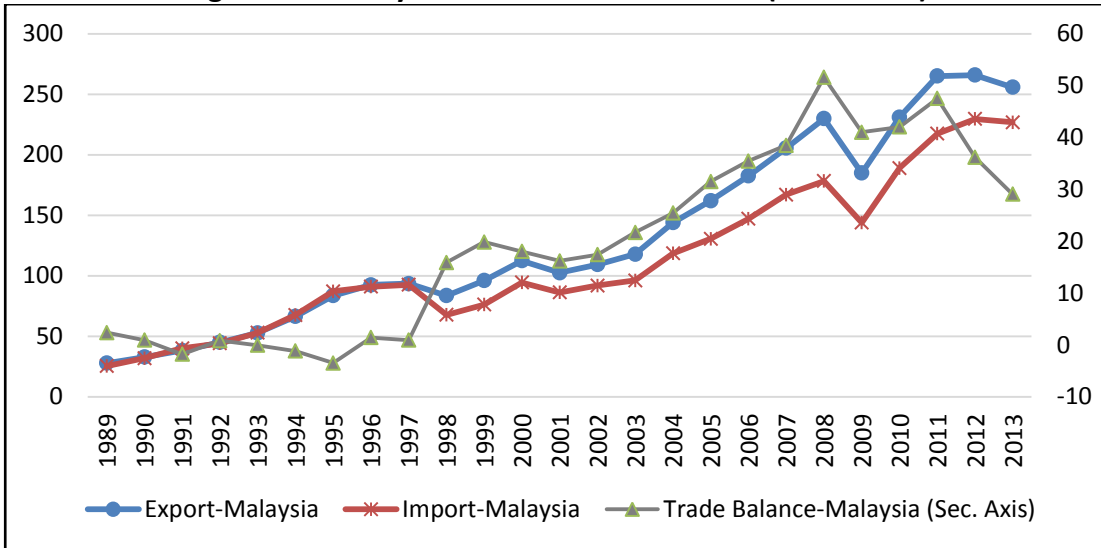


Figure A4. Malaysia's Trade with USA

(US\$ Billion)

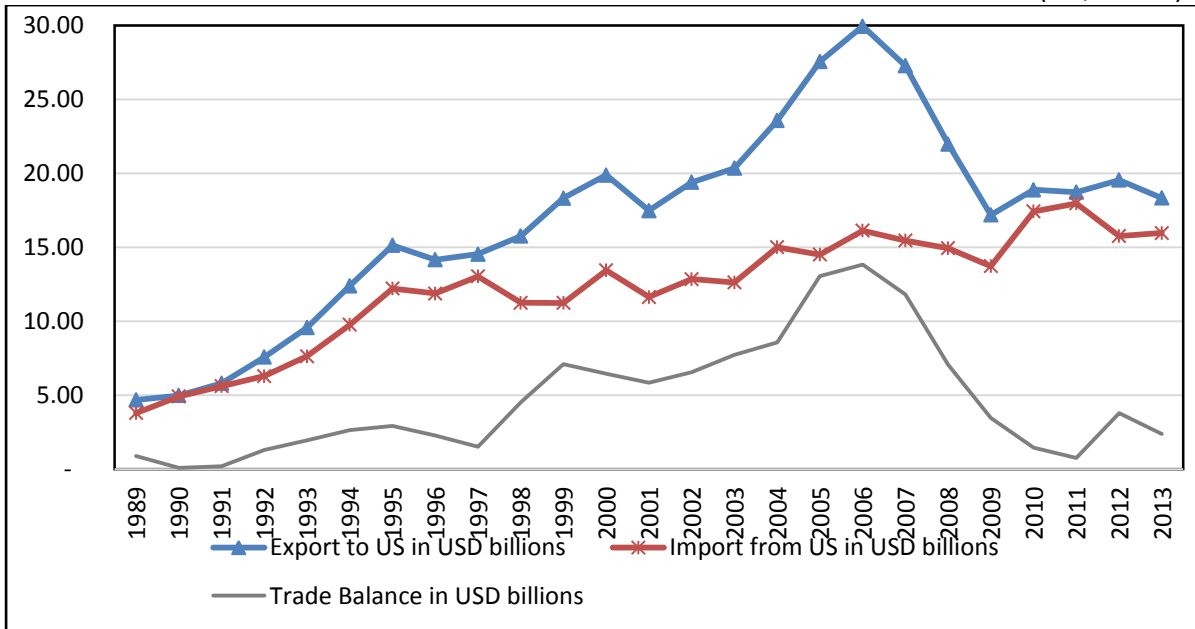


Figure A5: Indonesia's Trade with the World (US\$ Billion)

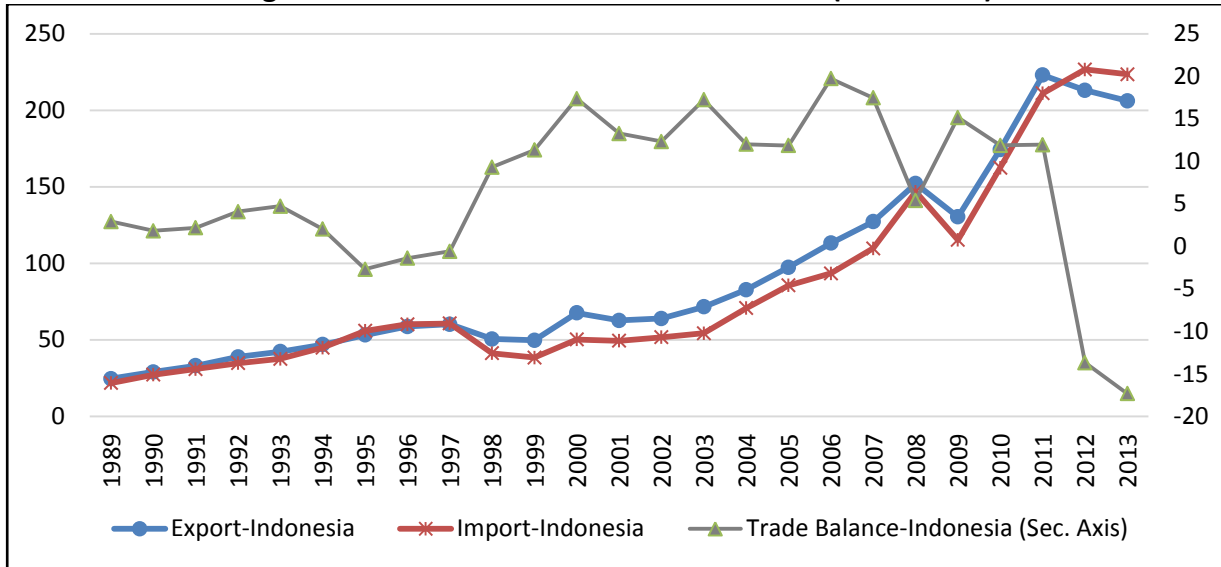


Figure A6: Indonesia's Trade with USA

(US\$ Billion)

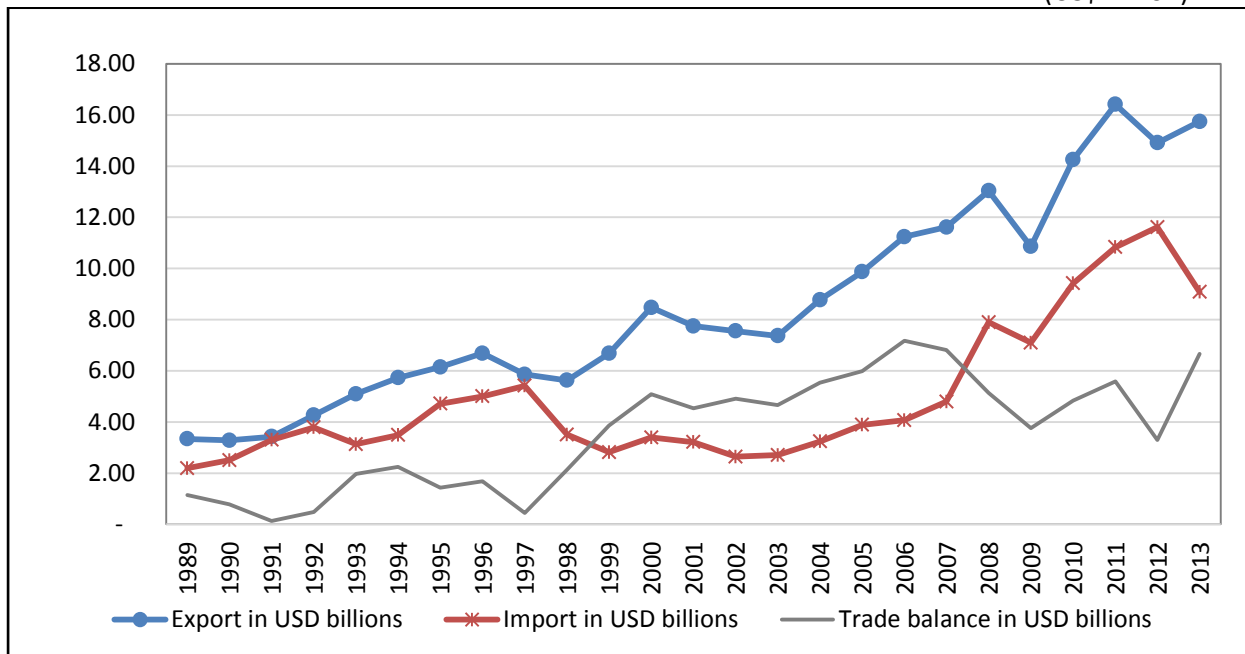


Figure A7: Korea's Trade with the World (US\$ Billion)

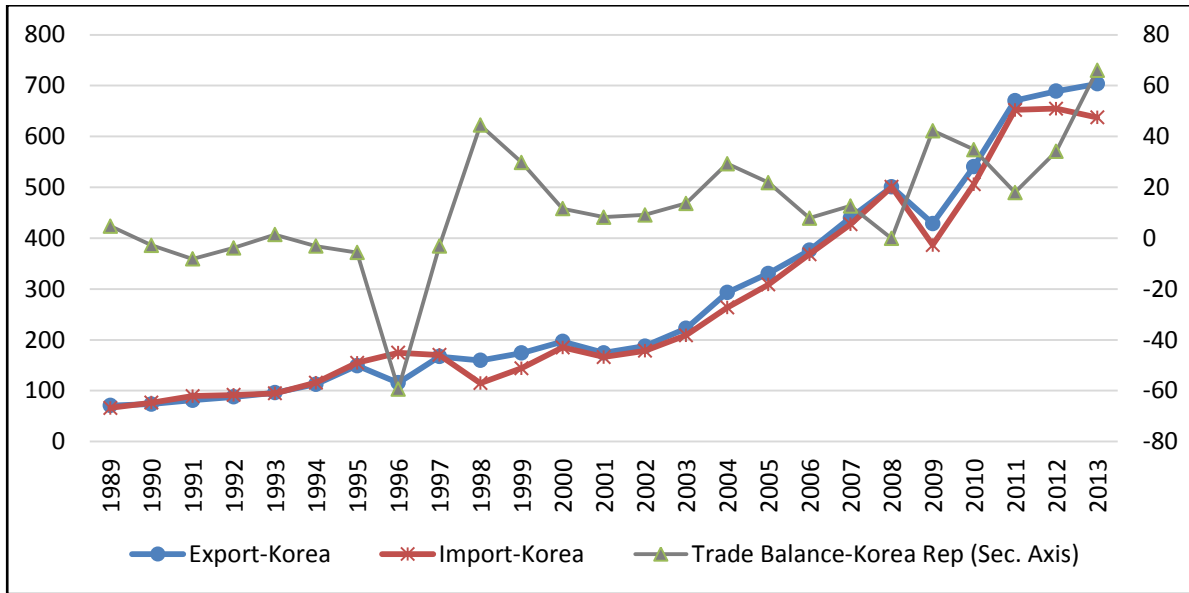
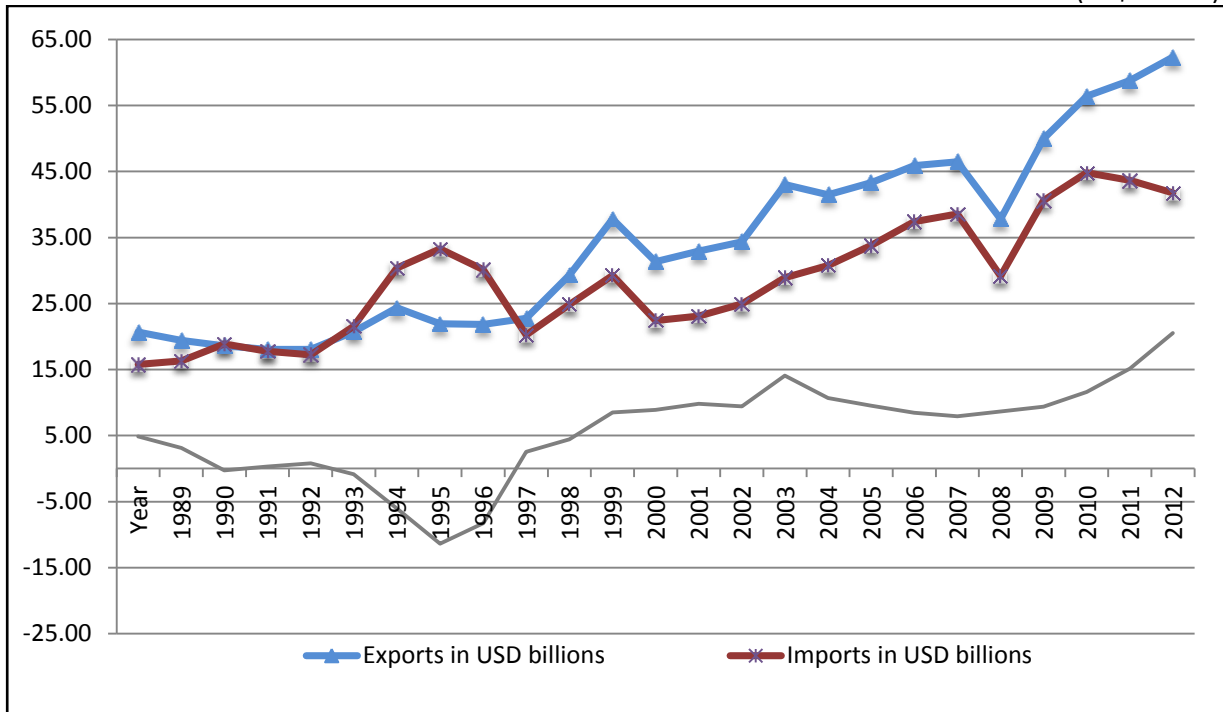


Figure A8: Korea Republic's Trade with USA

(US\$ Billion)



Source: Data used in Figures A1-A8 have been taken from World Integrated Trade Solutions (WITS)

Annex 2: Presence of Breakpoints in the CAD-GDP ratio (1980-2015)

Table A2.1: Results from Chow Test				
(H_0 : No breaks at specified breakpoints, i.e. in 1998)				
Country	Indonesia	South Korea	Malaysia	Thailand
F-statistic	32.0024	0.658225	15.1057	14.1796
Prob. F(2,32)	0.0000	0.5246	0.0000	0.0000
Status	Reject the null hypothesis	Not Confirmed	Reject the null hypothesis	Reject the null hypothesis

Table A2.2: Results from Quandt-Andrews unknown Break point test					
(H_0 : No breakpoints within 15% trimmed data)					
Country		Indonesia	South Korea	Malaysia	Thailand
Maximum LR F-statistic	Value	32.0024	19.00663	15.1057	14.1796
	Probability	0.000	0.000	0.000	0.000
Maximum Wald F-statistic	Value	64.00481	38.01327	30.21141	28.3593
	Probability	0.000	0.000	0.000	0.000
Status		Reject the null hypothesis	Reject the null hypothesis	Reject the null hypothesis	Reject the null hypothesis
Estimated Break Year		1998	1989	1998	1998
<i>Notes:</i>					
<ol style="list-style-type: none"> 1. Equation sample: 1980-2015; 2. Test Sample: 1986-2010; 3. Breaks compared: 25 4. Probabilities are calculated using Hansen's (1997) method 					

Table A2.3: Results from Bai-Perron Multiple breakpoint test for Korea (1980 – 2015)	
Break Test	F-statistic
0 vs. 1 *	118.5116
1 vs. 2 *	8.384474
<i>Notes:</i>	
<ol style="list-style-type: none"> 1. Break Dates: 1 at 1989; 2 at 1998; 2. *: Significant at 10 % 3. Break point Options: Trimming 0.15, Max. breaks 2, Sig. level 0.10; allowing heterogeneous error distributions across breaks 	