THE EXPERIENCE WITH LIBERALIZATION IN EAST ASIA: KNOWLEDGE GAINED FROM THAILAND AND SOUTH KOREA

by

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Abstract

Some observers have argued that financial market liberalization had a primary influence on the speed with which the East Asian Financial Crisis moved from country to country and the severity of the impact on economies in the region. The goal of this paper is to show that it was not liberalization alone, but a combination of liberalization, conflicting regulatory policy, poor risk management and lax supervision that did affect the speed and depth of the crisis. There are good reasons why a government may want to modify its laws and regulations to allow financial institutions to serve a broader range of customers, gain access to foreign capital, and compete in an international financial arena. Liberalized markets attract direct investment that creates jobs, provides diversification, and enhance growth opportunities. But gaining access to foreign capital does present a challenge for financial regulators and supervisors. Studying the risks and costs associated with removing regulation is important because liberalization may emphasize flaws that developed under a more regulated environment. A crisis may grow and spread easily when economic fundamentals deteriorate in a region combined with the freeing of capital flows, lack of strengthening reforms and inappropriate government policies.

This paper provides an overview of the East Asian Financial Crisis, then examines the range of regulations that countries utilize and why they choose to do so. This section will also discuss the weaknesses that can result from improper incentives implicit in a regulatory environment. The next section describes the experience with liberalization in East Asia using Thailand and Korea to illustrate the creation of an environment conducive to financial crisis. The paper concludes with a discussion of the potential benefits of liberalization.

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I would like to express sincere appreciation to Professor George Racette for donating his time, invaluable knowledge and unwavering patience in preparation of this final paper. I would also like to thank Dr. Joseph Fracchia and Dr. Ali Emami for their advice and constructive criticism. Special thanks go to my friends, especially Christina, for their support, patience and understanding throughout this entire process. Finally, I would like to thank my parents for their encouragement throughout my life.

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"In this increasingly interconnected world, the forces for good and evil travel with equal speed and ease. Globalization has an immense potential to improve people's lives, but it can disrupt – and destroy – them as well. Those who do not accept its pervasive, all-encompassing ways are often left behind. It is our task to prevent this; to ensure that globalization leads to progress, prosperity and security for all."

~U.N. Secretary General Kofi Anan, September 3, 1998

Chapter I

I.1 General Introduction

The goal of this work is to study the roles of financial liberalization and regulation in the Asian Financial Crisis. The Asian Crisis caused severe recessions in the East Asian economies and created a rippling effect that was felt all over the world. Prior to the crisis, many of the East Asian countries experienced extraordinary growth since the 1960s. The growth and prosperity in the region was referred to as the "Asian Miracle". For the period 1965 to 1990, many of the East Asian growth rates were considerably higher than the rest of the world: Indonesia (4.5%), Thailand (4.4%), Malaysia (4.0%), the Republic of Korea (7.1%), Singapore (6.5%), and Hong Kong (6.2%).[1] According to the World Bank, since 1960 these seven economies plus China and Japan "have grown about twice as fast as the rest of East Asia and the industrial economies, about three times as fast as Latin America

[1]Percentages are an average of the country GNP per capita growth rates weighted by population. Source: The World Bank, "World Bank Economic Policy Forum: Economic Growth in East Asia," The World Bank, 2 November 2000 <http://www.worldbank.org/wbi/edimp/ eastasia/growth.html>.

and South Asia, and about five times as fast as Sub-Saharan Africa."[2] But during the 1990s growth in the region was already slowing.

Many people believe that devaluation of the Thai baht in July 1997 triggered the crisis. It caused an abrupt halt to the expansion still occurring in East Asia. With the onslaught of the Asian Crisis, growth contracted, unemployment rose sharply, currency values declined and interest rates increased resulting in severe recessions. But the East Asian countries were not the only nations affected by the crisis. The globalization of business, interconnecting financial markets and international trade, allowed the harsher shocks of the crisis to travel north to Russia and east to South America. Even developed countries like the United States felt minor tremors. Integration of financial markets and the move toward a truly global economy has increased volatility in the markets and allows harsher shocks to transfer more readily from country to country. The fact that shocks can travel with increased speed and distance highlights the importance of studying crises and their causes. Having this knowledge may make it possible to mitigate or even avoid future crises. In addition, organizations like the IMF, the World Bank, the United Nations and the WTO will utilize this research to implement policies that will affect both developing and developed countries for years to come.

Liberalization of financial markets has been identified as a key factor in the crisis. Liberalization in this paper refers to the removal of laws and regulations to allow financial institutions to serve a broader range of customers and to compete at

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[2] IBID.

the same level with international financial institutions. Freer capital inflow is encouraged in the hope that it will stimulate real investment and accelerate economic development. Laws and regulations that restrict a country's institutions from participation in international markets may also protect a local economy from more intense competitive pressure. Many Asian economies employed a combination of regulatory policy and more liberalizing policy to balance the flow of capital while protecting the local economy. Regulatory policies may be used to restrict the movement of capital and other resources and thereby reduce financial market volatility. Even countries with relatively liberalized economies employ regulation in key economic sectors. The crucial step is finding the correct combination, which will aid in creating a more stable economy yet allow some competition and encourage growth. Unfortunately, since economies are constantly changing, finding this combination is a difficult task, which can result in conflicting policies that can slow or even stop economic growth.

Implementing liberalizing policy while failing to reform both the banking industry and the government were important factors in the Asian Financial Crisis. According to Beim and Calomiris, "(Liberalization) is most likely to succeed when strong foundations have been laid in law and regulation; indeed, a financial liberalization in the absence of appropriate law and regulation gives rise to chaos."[3] But a specific prescription for implementing liberalizing policy that applies to every

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[3] David O. Beim and Charles W. Calomiris, Emerging Financial Markets (New York: McGraw-Hill Irwin, 2001) 120.

economy is impossible to write. Economies are constantly growing and developing. Countries are endowed with different resources and will evolve differently through time. And though liberalizing policy will help allocate assets more efficiently through freer capital flows and increased competition, it works most effectively in economies with highly developed banking systems and financial markets. Great risks are involved with liberalization if the economy is not prepared or if the liberalizing policies are implemented without strengthening reforms. The risk is that liberalization will magnify economic weaknesses that developed in a more regulated environment. The weaknesses produce capital flight, put pressure on the exchange rates, generate balance of payments problems or create an unhealthy banking system; each of which is quite manageable. However, in the absence of appropriate government action, once manageable problems may lead to a recession, a foreign exchange crisis, a banking crisis or a full-fledged financial crisis. Detailed examples of two Asian countries, Thailand and South Korea illustrate the costs associated with liberalization. But even with the possible risks and costs involved, countries still choose to implement liberalizing policy. The potential benefits of liberalization include the opportunity for greater international trade, better access to credit by development of strong financial markets and even the possibility of an overall improvement in the welfare of a nation through higher employment, better healthcare and increased education.

Until an export-led expansion took effect in the 1960s, Asian countries were economically isolated from the rest of the world. A more global focus stimulated by international trade took shape as the East Asian economies grew rapidly. To sustain their high rates of growth and increased international trade, these economies needed to encourage capital flows. However, the regulatory environment often impeded rather than stimulated capital flows. Incentive problems, mismatched lending and borrowing and negative real interest rates commonly arose from the mix of inconsistent and contradictory policies. Freeing capital flows and deregulating some sectors emphasized these flaws in the respective financial structures causing several of the East Asian economies to crumble including Thailand, South Korea, Indonesia, Malaysia and The Philippines.

In the context of the Asian Financial Crisis, this paper will address the reasons governments choose to regulate, types of controls used and weaknesses linked with regulation. The reader will then be introduced to liberalization and the potential costs associated with deregulating the financial sector. This section also includes the experiences of two East Asian countries during the crisis: Thailand and South Korea. These examples will illustrate the risks and costs involved with liberalizing unprepared economies. Finally, the paper will address the benefits associated with liberalizing activities that drive countries to accept the risks involved.

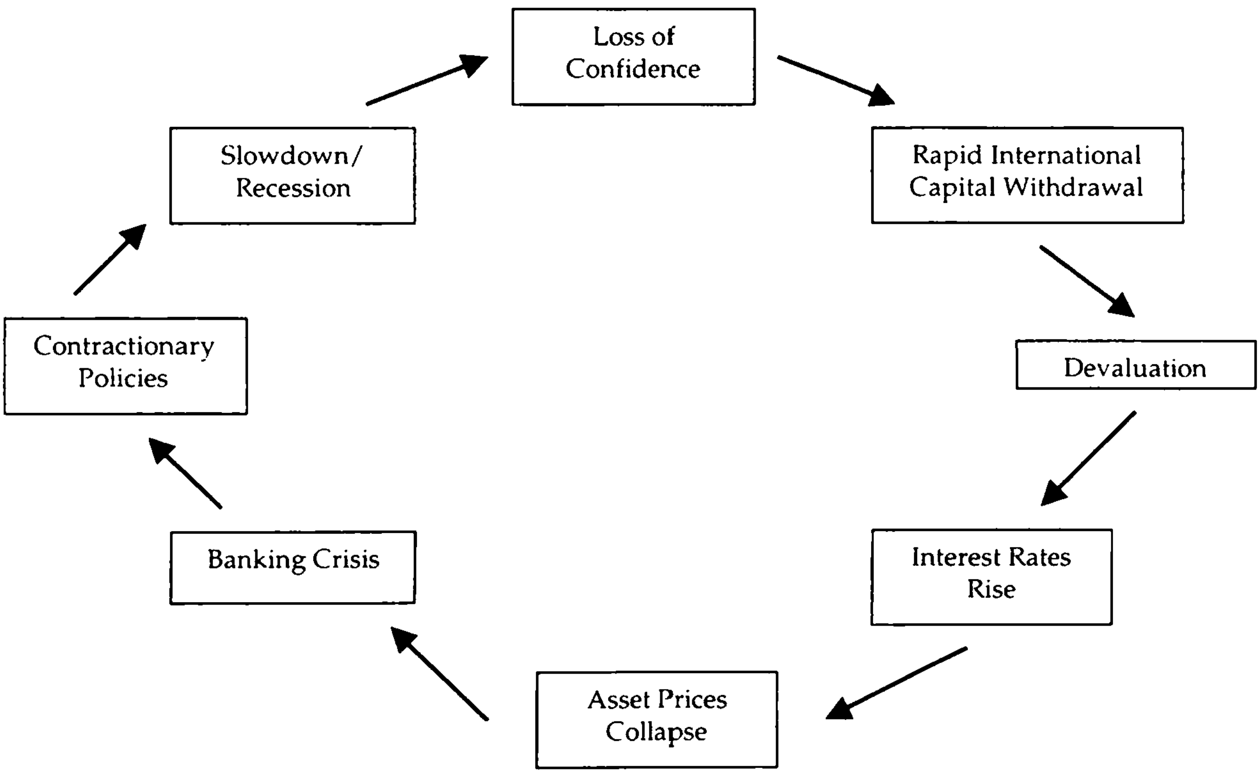
I.2 Introduction to the Asian Financial Crisis

This section concentrates on the main components of the crisis that were shared by most of the East Asian countries after a loss of confidence in the region.

They included a rapid outflow of capital, a foreign exchange crisis, and a banking crisis. A simplified version of events is presented in the diagram below. It was created by Professor Jomo of the University of Malaya in the book, Tigers in Trouble.

Exhibit A

East Asian Dilemma[4]



The diagram depicts the events that resulted in a downward economic spiral for the Asian economies. As mentioned previously, the catalyst for the crisis is considered to be the loss of confidence in the Thai government that lead to a

[4] Jomo K.S., Tigers in Trouble: Financial Governance, Liberalisation and Crises in East Asia, ed. Jomo K.S., (London: Zed Books Ltd., 1998) XIV.

devaluation of the Thai baht in July 1997. The baht had been pegged[5] to a basket of currencies and its devaluation, in which the government was forced to abandon the peg and allow the baht to float against the world currencies, touched off a foreign exchange and banking crisis in Thailand. When it became public knowledge that the peg was no longer in effect, there was a loss of confidence in the whole region that began the "Asian Contagion". A loss of consumer confidence from both domestic and foreign investors led to a rapid outflow of capital as these investors tried to convert local currencies into more stable currencies such as the dollar.

As capital flowed out of each of the countries, local currency was sold to purchase "hard" currencies such as the U.S. dollar and the German deutsche mark. Selling pressure caused individual currencies to devalue (fixed) or depreciate (floating) further. A large surplus of domestic currency flooded the foreign exchange market. Since many of the exchange rates were fixed (or "pegged") in some way, the respective Central Banks of each country had to intervene in the foreign exchange market and buy the excess supply of domestic currency to maintain the fixed rate. In the case of Thailand, the Central Bank did not have enough reserves to defend the exchange rate. With a free floating currency, if the exchange rate depreciates relative to other currencies then inflation can set in. This

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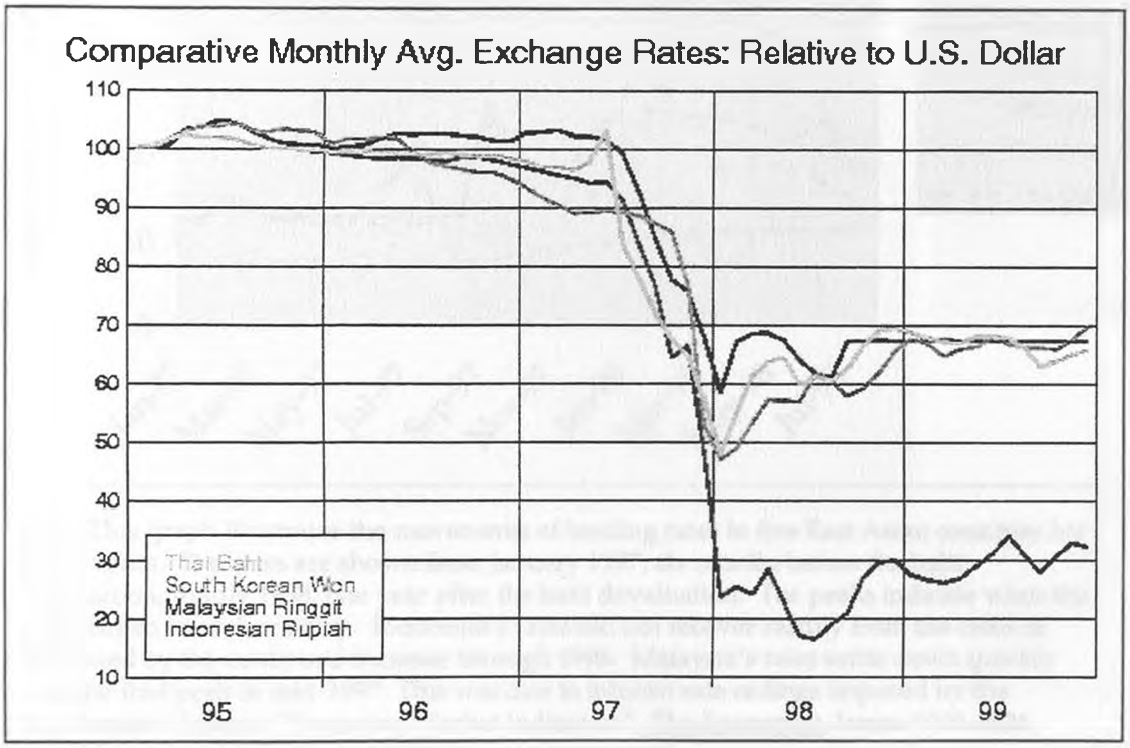
[5] Governments can set a fixed exchange rate at which the domestic currency will exchange for a specific amount of a foreign currency. To maintain this rate, governments must intervene in the foreign exchange market and buy when the demand for the currency is low or sell when the demand for currency is high. An example of this is when Mexico "pegged" (fixed) its currency to the U.S. Dollar. If the fixed rate is 100 pesos to the dollar and something occurs in the market to force the peso to devalue to 130 pesos to the dollar, then the Mexican government must intervene in the foreign exchange market and buy pesos (creating demand) to push the value back up. When a currency devalues, it makes it more expensive to buy the currency it is being compared to.

occurs when an economy is running at full capacity because exports become relatively cheap to foreign countries. There will be an increase in the quantity of products demanded, which will in turn drive up all prices. Interest rates will then rise in response to the inflation. Higher interest rates may dampen investment and slow, or in the extreme, halt, economic growth. Unfortunately, during the crisis exchange rates plummeted (Please refer to Exhibit B below) and in some countries (e.g. Indonesia) inflation sky-rocketed with interest rates climbing to match (Please refer to Exhibits C and D below). The added risk in the region also helped drive up interest rates.

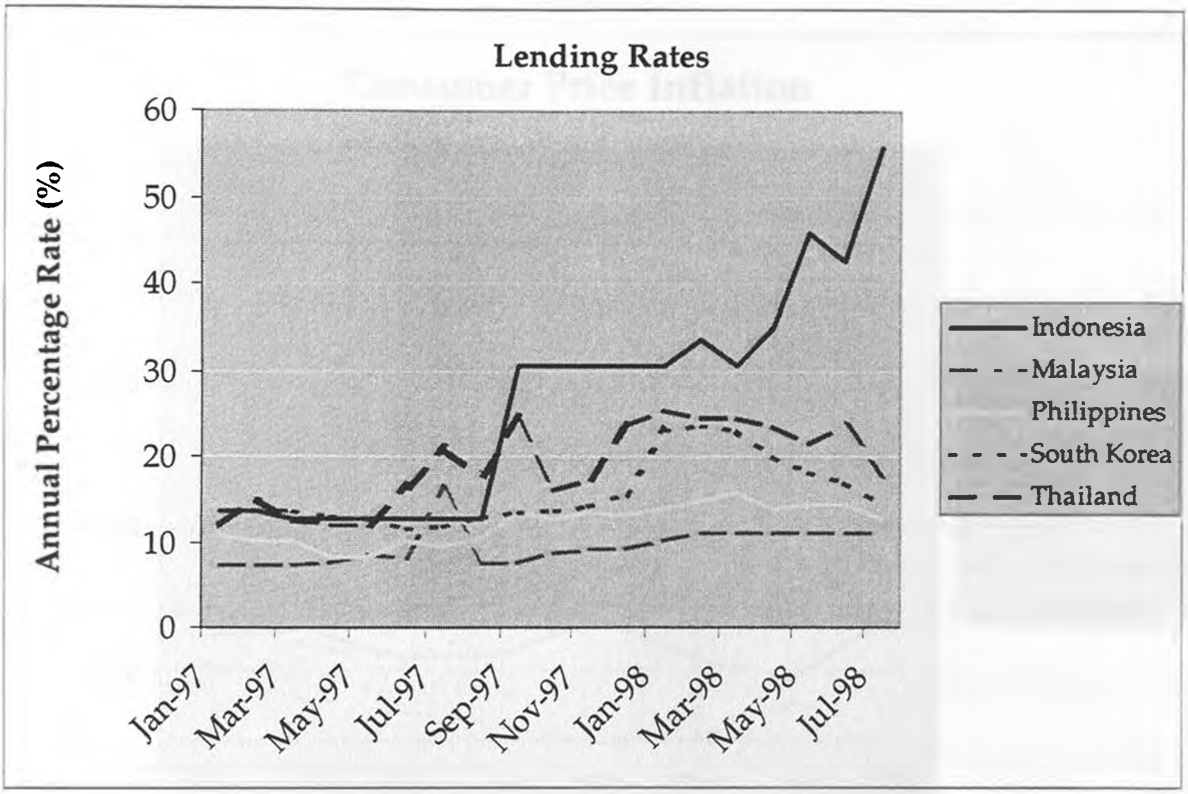
In Thailand, real estate prices that had been driven up by speculation actually collapsed before the devaluation of the baht. The owners of these assets experienced a dramatic decrease in their revenue and were unable to repay their loans. The inability of borrowers to pay their loans combined with lack of risk management and other weaknesses in the financial sector led to a banking crisis. Contractionary policies, such as high interest rates and reduced government spending, were put in place to try to slow the outflow of capital, support the currency and control the crisis. The policies led to severe recessions in the region, which then reinforced a loss of confidence. Specific country examples will be given in more detail later in the paper. These examples will discuss specific events leading to the crises in Thailand and Korea. Each country's unique economy and regulatory structure created its own weaknesses that led to the crisis and impeded recovery. The next section will discuss why nations choose to use regulation, what types of controls are used and the risks involved with conflicting policies.

Exhibit B



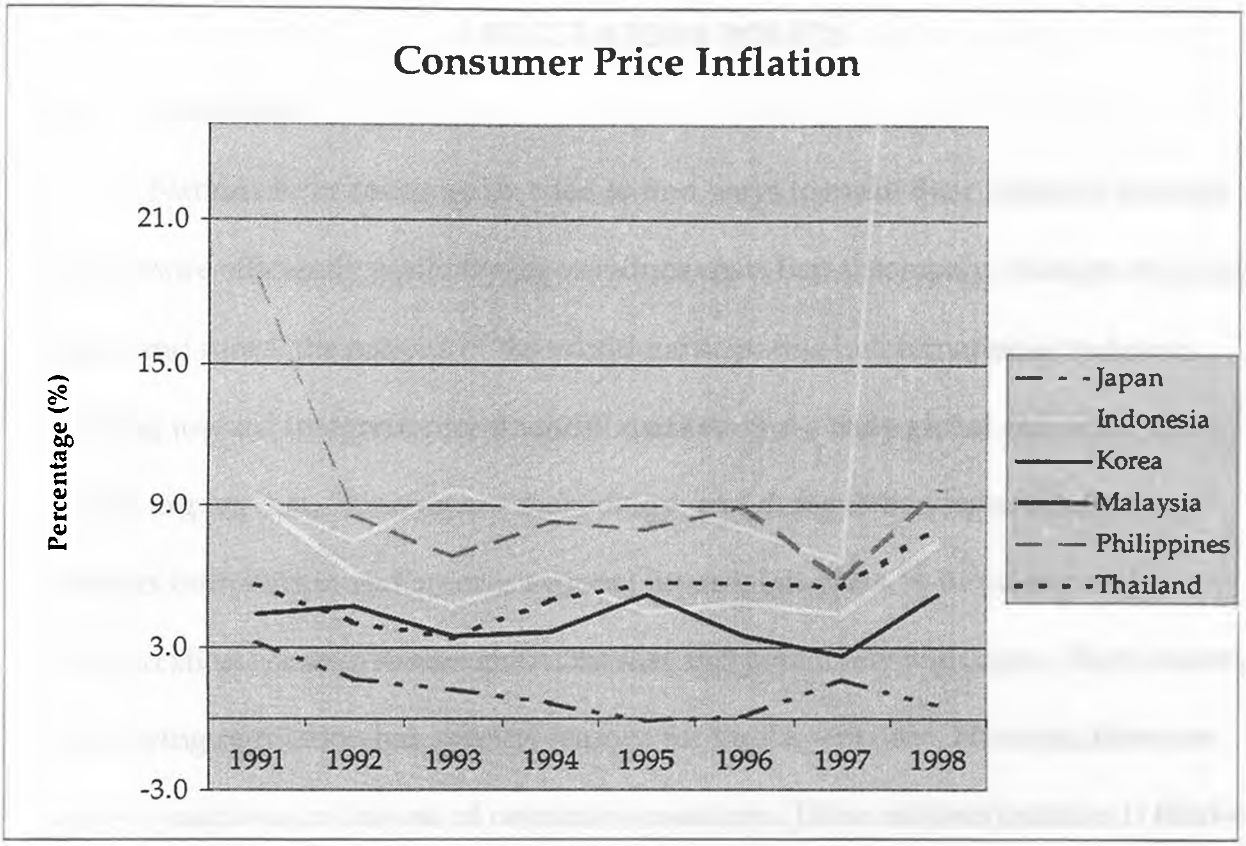
Note: This graph shows the decline in the value of four East Asian currencies relative to the U.S. dollar. Each currency devalued or depreciated by a significant amount starting in mid-1997. Source: Pacific Exchange Rate Service

Exhibit C



Note: This graph illustrates the movements of lending rates in five East Asian countries hit by the crisis. The rates are shown from January 1997, six months before the baht devaluation, to July 1998, one year after the baht devaluation. The peeks indicate when the crises began in each country. Indonesia's rates did not recover readily from the crisis as illustrated by the continued increase through 1998. Malaysia's rates settle down quickly after the first peek in mid-1997. This was due to interest rate ceilings imposed by the government. Source: "Emerging Market Indicators", The Economist, Issues 8001-8026

Exhibit D



Note: This graph illustrates inflation rates in five East Asian countries from 1991 to 1998 with a comparison to Japan. All five countries had relatively high inflation compared with Japan, but there was a significant increase starting in mid-1997 when the crisis began. Source: International Financial Statistics

Chapter II

REGULATORY POLICY

II.1 Overview

Nations have consistently tried to find ways to make their financial markets work more efficiently while trying to reduce costs that accompany changes in policy. More and more, the nations of the world participating in international trade are moving toward integration of financial markets and a truly global economy. Clive Crook argues that, "Innovation, technology, and deregulation have smashed the barriers both within and among national financial markets."[6] But along with liberalization comes a riskier global market and potentially high costs. Each country employing regulation has specific reasons for implementation, however, there are general motives for the use of restrictive measures. These motives include: 1) Market imperfections, 2) absence of markets, 3) lack of confidence in market processes, and 4) potential costs of market processes outweighing benefits. Some governments agree with the ideology of liberalization but try to prevent liberalizing policies because of information asymmetries in the market or because markets are underdeveloped. Special interests may also put pressure on the government to prevent liberalizing policy because they hold monopoly-like positions in the economy. Communist countries also utilize regulation. Countries like China and North Korea do not operate in the capitalist frame of reference and will push to maintain controls over their financial markets in opposition to democratic forms of

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[6] Clive Crook, ed., "A Survey of the World Economy: Fear of Finance," The Economist 324 (1992): 9.

governments. In this case, financial institutions are simply used to implement government policy. The main reason for regulation, though, is linked to the riskiness of the globalization. Costs associated with the freedom of markets, especially in underdeveloped countries, may actually outweigh the benefits. In an effort to make financial markets more predictable and reduce the threat that a crisis in one sector will damage other sectors, governments strengthened barriers between segments of financial services.

According to Germidis, Kessler and Meghir, liberalized systems are those "where financial institutions have greater leeway in carrying out their intermediation activities, and where market mechanisms are promoted," and financial systems that are closely controlled are those "in which government intervention is extensive."[7] Most countries take a hybrid approach between complete state control and laissez faire. Germidis, Kessler and Meghir characterized the two systems by qualitatively focusing on eight criteria: 1) The level of real interest rates[8]; 2) the extent of financial markets; 3) recourse to and mode of implementation of credit allocation policies, through subsidized interest rates or target credit quotas; 4) the extent of foreign exchange controls; 5) the control of competition by public authorities; 6) the public or private, local or foreign status of financial institutions; 7) the predominance of the Treasury in financial activity; and 8) the role and influence of the Central Bank in determining and implementing

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[7] Dimitri Germidis, Denis Kessler, and Rachel Meghir, Financial Systems and Development: What Role for the Formal and Informal Financial Sectors? (Paris: OECD, 1991) 24.

monetary and credit policy through refinancing policies and reserve requirements.[9] The levels of regulation in these areas and other areas of the financial system vary among nations and are relevant in determining policy action when an emerging market begins to open its financial system further.

East Asian economies did not have well-managed banking industries or highly developed capital and foreign exchange markets, so regulations were used as a buffer against market volatility until reforms strengthening the financial sector could be implemented. This motive can be explained using two arguments: the Second Best Argument and the Policy Implementation Argument. The basis of the Second Best Argument is that, in some cases, capital account restrictions actually improve economic welfare "by compensating for financial market imperfections including those attributable to informational asymmetries."[10] It is second best because the best choice is considered to be the unrestrained movement of capital. However, in some cases the best solution is not possible due to current government policies and financial structure. Another motive is the "Policy Implementation Argument" where capital controls are used to make adjustments to policies when the exchange rate is already fixed. Fixing the exchange rate can smooth volatile fluctuations in the foreign exchange market, providing a more stable environment to make adjustments to government and economic policies and financial structure.

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[8] Real interest rates are equal to nominal interest rates adjusted for expected inflation.
[9] Germidis, Kessler and Meghir 27.
[10] Akira Ariyoshi, et al., "Country Experiences with the Use and Liberalization of Capital Controls: Part I," The International Monetary Fund January 2000, 12 January 2000 <http://www.imf.org/external/pubs/ft/capcon/index.htm>.

The fixed exchange rate or peg also helps reduce risk associated with foreign trade by keeping the price of exports relatively stable. However, some adjustments, while in process, may put pressure on the peg. To mitigate the pressure, capital controls are used until the new policies are in place.

Another way to promote home industries and help them to grow initially is to limit foreign competition. However, regulations that limit foreign competition often impede domestic competition as well. Regulation that divided markets tended "to give monopolistic power to favoured suppliers"[11] and did not allow for new competitors to enter. To keep the power of the monopolies in check, a system of controls was then placed on the industry. These restraints included both price and credit controls. These industries needed protection from foreign competitors who were less regulated and more efficient. A domestic financial firm with prices set by authorities could hardly compete with less-regulated foreign institutions.[12] Once regulation is in place and favored industries or firms have gained a high status in the economy it is difficult to dismantle the controls. The government may agree with the ideology of liberalization but will still try to prevent liberalizing policies based on political or social concerns that are given higher value.[13] In this case, powerful interest groups block implementation of liberalization because they would be adversely affected. For example, banks may want to block some liberalizing

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[11] Crook 10.
[12] IBID.
[13] John Ravenhill, "APEC and the WTO: Which Way Forward for Trade Liberalization?," Contemporary Southeast Asia 21.2 (1999): 220-.

policies because they threaten banks' competitive advantage. Competitors, either domestic or foreign, may be able to offer loans at cheaper rates or a wider range of products and skills, which would cut into the profits of the incumbent banks. However, even as governments supported regulation, market forces of supply and demand undermined controls, expanding the financial markets. This occurred in many of the East Asian countries that sought foreign capital to sustain rapid growth. The growth of financial markets and the de-regulation consistent with expansion are proving to be persistent forces in bringing nations together into a global economy.

According to research done by Ariyoshi, Habermeier, Laurents, et al., in general, controls can be effective but they need to be "comprehensive, strongly enforced and accompanied by necessary reforms and policy adjustments."[14] The reforms may be implemented as a way to reinforce the controls or as a means to allow the controls to be lifted. They are essential, not only because an economy in general will function more efficiently without restrictions but also because controls can eventually be circumvented. Incentives to circumvent controls include interest rate differentials between countries or institutions, which present arbitrage opportunities for people to make profits. In Thailand in 1996, the baht money market rate was 9.23% and the baht lending rate was 13.40%. At the same time, U.S. dollar rates in the United States were 5.30% and 8.37%, respectively.[15] In this case, banks and companies would seek capital from investors abroad if possible. The

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[14] Ariyoshi, et al., "Country Experiences: Part I."
[15] International Monetary Fund (IMF), International Financial Statistics (Washington, D.C.: IMF, 2000).

banks would then make loans at the domestic interest rates and earn a profit. In contrast, suppose a country has placed a ceiling on interest rates and perhaps a bank cannot lend money with an interest rate of more than 4%. Now assume that a foreign country's interest rate is 8%. If there are few restrictions on lending abroad then a firm or bank could borrow money domestically at the low interest rate and find a foreign firm or bank to lend this money to at a rate higher than 4% but lower than 8%. This process is known as arbitrage. The profits would be the difference between the high and low interest rate.

Another adverse effect of capital controls is that they may discourage legitimate transactions, including "foreign direct investment ... and may raise the cost of accessing international capital markets."[16] Foreign direct investment (FDI) is a favored form of capital inflow by governments because it is an investment in long-term assets such as buildings, machinery and land that promotes growth in production capabilities, technology transfers and local employment, and is not easily reversed. The interest rates placed on FDI are usually much lower than other forms of capital flows due to the longevity of the investment and the lower risk involved for the investor. When capital controls are implemented, the efficiency of resource allocation may decline. In Malaysia, FDI was discouraged because a risk premium was placed on any capital flowing into the country.[17] This risk premium increases the cost of capital including the inflow of capital in the FDI category. If controls are easily circumvented then constant restructuring of controls may be needed. Both

[16] Ariyoshi, et al., "Country Experiences: Part I."

initial implementation of controls and restructuring can create a wider range of problems if they conflict with other economic policies. These conflicts create more weaknesses in the control structure, like pressure on a fixed exchange rate, which increases the pressure on the regulatory process.

II.2 Capital Controls

Governments have tried to regulate their financial markets in many ways including fixing exchange rates, controlling the banking industry and developing laws to mitigate or prohibit foreign competition. Two general types of controls are capital controls, which limit the flow of capital in and out of a country, and foreign exchange controls, which implement various types of fixed exchange rate regimes on a country's currency. Capital controls and foreign exchange controls should be used as part of a larger plan to strengthen the financial structure in a country as preparation for liberalization rather than as a solution to volatile capital flows or an unstable exchange rate.

One primary reason for utilizing capital controls is to control the flow of short-term capital flows. These types of capital flows, which have a maturity of one year or less, are considered extremely volatile. However, controls on short-term flows can also discourage much needed foreign direct investment and other long-term cash flows. Direct or administrative capital controls restrict capital transactions and transfers of funds through outright prohibitions, explicit quantitative limits, or an

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[17] IBID.

approval procedure.[18] In Korea, the government restricted the use of foreign exchange. Heo and Kim note that, "Korean nationals were not allowed to borrow freely on the international market and the ability of foreign residents to buy, own and sell domestic assets was limited."[19]

Indirect or market-based controls take a different approach in an effort to restrict capital flows. These types of controls discourage capital movements and associated transactions by making them more costly to undertake. Such controls may take various forms, including: dual or multiple exchange rate systems; explicit or implicit taxation of cross-border financial flows; and other predominantly price-based measures.[20] In dual or multiple exchange rate systems, different exchange rates apply to different types of transactions. For example, authorities may instruct domestic financial institutions not to lend to borrowers who are engaged in speculative activities. In this case, the exchange rate is infinite, they will not exchange at any price. In Thailand during the crisis, the banks were instructed to suspend all transactions with nonresidents that could facilitate a build-up of baht[21] positions in the offshore market.[22] Foreign exchange transactions associated with trade flows, FDI, and equity investment may be excluded from the restrictions. In essence, the two-tier market attempts to raise the cost of the domestic credit needed for speculators trying to establish a net short domestic currency position, while

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[18] IBID.
[19] Uk Heo and Sunwoong Kim, "Financial Crisis in South Korea: Failure of the Government-Led Development Paradigm," Asian Survey 90. 3 (2000): 500.
[20] Ariyoshi, et al., "Country Experiences: Part I."
[21] Baht is the currency of Thailand.
[22] Ariyoshi, et al., "Country Experiences: Part I."

allowing non-destabilizing domestic credit demand to be satisfied at normal market rates.[23]

Another type of indirect control is explicit taxation of cross-border flows, which involves placing a tax on transactions abroad to limit their attractiveness. These taxes can also apply to income arising from domestic holdings of foreign financial assets or from foreign holdings of domestic financial assets. In each instance, penalties will result in lower returns and restricted capital flow.[24] Also falling into the category of indirect taxation of cross-border flows are non-interest bearing compulsory reserve/deposit requirements, which are the most frequently used market-based controls. Under such schemes, banks and non-banks are required to deposit an amount of domestic or foreign currency equivalent to a proportion of either the total inflows or the net inflows of foreign capital. As a price for utilizing foreign capital, these deposits do not earn interest and cannot be used in investment projects.[25] In effect, if these firms borrow or lend abroad they are raising the costs of doing business because they are forced to forfeit any compensation from either interest on deposits or returns on investments. Other indirect regulatory controls include restrictions on how much commercial banks can borrow and lend abroad relative to their domestic borrowing and lending activities; asymmetric open position limits that discriminate between long and short currency positions or

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[23] IBID.
[24] IBID.
[25] IBID.

between residents and nonresidents; and the requirement of sufficiently high credit ratings in order to borrow abroad.

II.3 Foreign Exchange Controls

The main reason for enacting foreign exchange controls is to limit exchange rate volatility and thereby reduce the volatility of the domestic economy. The volatility can have severe effects on both the industrial and the financial sectors. Economists do not agree on which exchange rate regime is the most effective. Economies are constantly growing and developing. Thus, choosing an exchange rate regime may be based more on the stage of development of the economy and the inherent superiority of a specific set of currency controls. The currency regime known as "floating" is used in the United States as well as many other industrialized nations. In 1995, 98 of the world's currencies fell into this category.[26] In a "free float" system, the price of a currency is allowed to fluctuate with supply and demand mechanisms in the market. However, the price, which constantly fluctuates, can affect trade and foreign investment. A "managed float" is a system where a central bank will make minor interventions to smooth out exchange rate fluctuations.

The competitiveness of a country's exports is based on the foreign exchange rate. Holding prices constant, if Home's currency devalues relative to a trading

[26] Graham Bird, "Exchange Rate Policy in Developing Countries: What is Left of the Nominal Anchor Approach?," Third World Quarterly 19.12 (1998): 255-76.

partner's currency, Home's exports are relatively cheaper and more competitive.[27] On the other hand, if Home's currency appreciates, Home's exports become less competitive. According to Jeffrey Sachs, a floating exchange rate regime can help to "buffer an economy from world shocks. Thus, when Canada, Australia and New Zealand faced falling commodities prices (in 1998) for major exports, their currencies weakened against the dollar, and this currency depreciation helped to boost other exports."[28] In some developing countries, however, government policies have not allowed industries to diversify export production effectively and fluctuations in the price of the currency can have dramatic affects on the economy. Steve Hanke adds that, "It must be stressed that floating rates, unlike fixed rates, do not perform well in developing countries because those countries usually have weak monetary authorities and histories of monetary instability."[29] This supports the argument that one exchange rate regime will not necessarily work for all economies at all times. As a country develops, it may be prudent to institute a fixed exchange rate regime in order to limit volatility in the market to strengthen different sectors of the economy.

Foreign exchange rates and high volatility also affect the banking system. Banks will often hold assets or liabilities denominated in foreign currencies. In a healthy banking system, the risk associated with foreign-denominated assets and liabilities, whether short or long-term, will be properly hedged so as not to induce huge losses when the price of the currency fluctuates. In general, the banking

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[27] A decline in the value of a currency does not necessarily mean a decline in real value of goods. Inflation can act to counteract the fall in value by pushing prices back up.
[28] Jeffrey Sachs, "The Exchange Rate Puzzle," WorldLink Mar/Apr (1999): 8-9.

systems in emerging economies are not well developed. These systems have not established or enforced accounting standards, proper lending procedures or risk management practices. In this case, a fixed exchange rate may relieve the banking system of loss-inducing volatility until reforms can be made. Sachs also notes that a regulated exchange rate system can "bolster prudent fiscal policies."[30] The governments in some developing countries have consistently funded budget deficits by printing money. The effects of the increase in the money supply are higher inflation and interest rates. Both effects are evident in Argentina where the government continually printed money and drove inflation up to 78% per month in 1989.[31] In some fixed exchange rate systems, the Central Bank has the authority to cut lending to the government so that excessive printing of money does not occur. However, fiscal policy may not change and large deficits may persist, leading to high interest rates and diminishing foreign exchange reserves.[32]

Countries that decide to maintain a regulated exchange rate system also compromise the ability to be a lender of last resort, which provides liquidity during a financial crisis. To provide liquidity, the central bank would need to provide the banks with hard currency, which it can only get by selling off its reserves. The central bank may not have enough reserves to provide liquidity and support the currency peg at the same time. When there is a run on a bank and liquidity is provided, "depositors often turn around and convert their domestic currency into

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[29] Steve Hanke, "Reflections on Exchange Rate Regimes," CATO Journal 18.3 (1999): 335-344.
[30] Sachs.
[31] Francois R.Velde, "Dollarization in Argentina," Economic Perspectives 1st quarter (2000): 24-37.

foreign exchange."[33] This creates an excess supply of the national currency on the market, which in turn puts further pressure on a currency to devalue. To maintain a peg, the Central Bank must intervene and utilize foreign reserves to purchase the excess domestic currency. In some cases, as in Thailand and other Asian countries, the Central Bank does not have enough reserves to maintain the peg and the currency devalues.

Exchange rate control mechanisms include pegged exchange rates, currency boards, dollarization and economic unions. In a pegged exchange rate regime, governments can set a fixed rate at which the domestic currency is exchanged for foreign currency. To maintain this rate, a central bank must intervene in the foreign exchange market and buy when the demand for the currency is low or sell when the demand for the currency is high. A pegged rate can take several forms. The first form is a constant peg where the value of the currency is strictly defended. Another form is called a "crawling peg" in which the currency is allowed to change by a certain amount on a specific schedule. Another type of peg allows the currency price to float within a narrow price band. Choice of a proper "peg" currency and foreign exchange rate are based on the goals of the economy and trade relations with other countries. Thailand utilized a pegged exchange rate regime before the Asian Crisis. Thailand had pegged the baht to a basket of currencies heavily weighted by the U.S. dollar. However, Thailand's largest customer was Japan and having the baht tied predominately to the U.S. dollar caused problems leading to the

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[32] Sachs.

Asian Crisis. The U.S. dollar appreciated against the Japanese yen, which also meant that the baht appreciated against the yen. As a consequence, Thai exports became relatively more expensive and the Japanese sought to import fewer Thai products.

A currency board is a regulated exchange rate regime that fixes the price of the currency to another currency, most often the U.S. dollar or the German deutsche mark, which is then vigorously maintained. Under the currency board system there is no central bank and market forces alone determine the money supply. The currency board issues "notes and coins that are convertible on demand and at a fixed rate into a foreign reserve currency. Its reserves are equal to 100%, or more, of its notes and coins in circulation."[34] It is similar to pegging except the currency board is limited to buying and selling foreign exchange for domestic currency and, in principle, is never allowed to act as lender of last resort. A country with a currency board limits its ability to make necessary adjustments to the economy with monetary policy. Hong Kong has used a currency board since 1983, pegging the Hong Kong dollar to the U.S. dollar at an exchange rate of HK$7.80/US$.[35]

A disadvantage associated with the currency board is the possibility of an enormous loss in foreign exchange reserves resulting from public lack of confidence in the domestic currency that precipitates speculative attacks. With a 100% backing

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[33] IBID.
[34] Alan C. Shapiro, Foundations of International Financial Management, 3rd ed., (New York: John Wiley & Sons, 1999) 49.

of the domestic currency, the currency board can supply the necessary reserves but other problems begin to emerge. Lu and Yu state that, "When the authorities redeem local currency to discourage speculative attack, the banking system would immediately be caught in a credit crunch, causing liquidity problems for those banks with poor balance sheets."[36] The credit crunch arises because there is less local currency in circulation and the currency board is unable to give the banks liquidity. At the same time, defending the fixed exchange rate will make short-term interest rates volatile. The volatility comes from increased risk in the foreign exchange market when the public perceives that a country is having trouble defending its pegged currency. This in turn may cause further losses for banks with large short-term borrowings. The difficulties will transfer to other sectors of the economy through "credit contraction and fluctuation of interest rates"[37] causing a severe economic recession. This chain of events took place in Hong Kong during the Asian Crisis. Hong Kong was able to maintain its currency board and defend itself against speculative attacks but at a cost of about 15% of the country's total foreign reserves.[38]

Argentina, another emerging market, has maintained a currency board with the Argentine peso fixed at 1 U.S. dollar since April 1, 1991. But in an effort to

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[35] Kurt A. Schuler, Currency Boards, diss., George Mason University, 1992, (Fairfax, Virginia: 1992), 1 November 2000 <http://users.erols.com/kurrency/webdiss1.htm#CHAPTER%208.%20%20CURRENCY%20BOARDS%20TODAY>.

[36] Ding Lu and Qiao Yu. "Hong Kong's Exchange Rate Regime: Lessons from Singapore," China Economic Review 10.2 (1999): 122-140.

[37] IBID.

[38] IBID.

provide the economy with a more stable currency and promote consistent growth, the government has been seriously considering "dollarization". As the name implies, Argentina would completely give up its national currency and replace it with U.S. dollars. Before foreign exchange controls, Argentina had suffered from numerous trials including frequent coups, recurring monetization of debt and speculative attacks. Each episode left the country in economic recession and political turmoil. With the implementation of the currency board, price levels stabilized quickly. In 1989, Argentina experienced hyperinflation of 3080% but by 1994, inflation had dropped to a mere 4%.[39] Along with the currency board, the government reduced spending and eliminated the budget deficit. It also embarked on multiple reforms including privatization of state-owned companies, trade liberalization, freeing of international capital flows and deregulation of the banking industry.[40] But Argentina has not been immune from the affects of currency and banking crises that hit both close neighbors and distant trading partners. Argentina suffered from the Mexican balance of payments crisis that occurred in January 1995, as well as the Russian default crisis of August 1998 and the devaluation of the Brazilian real in January 1999. After each incident there was intense speculation on a possible devaluation of the Argentine peso, which caused interest rates to rise sharply.[41]

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[39] Shapiro 50.
[40] Velde.
[41] IBID.

"Dollarization" seems like a drastic measure considering that in most countries the national currency is utilized in all transactions, kept on deposit in the bank and used in debt contracts as the denominating currency. However, this is not the case in Argentina. Currently, "61.3 percent of private nonfinancial sector deposits are denominated in dollars."[42] Also, reserve requirements at commercial banks are met utilizing dollar-denominated assets. Argentineans already use dollars to quote prices and carry out transactions.[43] Giving up the peso, though, also means completely giving up monetary policy and the ability to be a lender of last resort. Argentina cannot provide liquidity for banks because it does not have the authority to print U.S. dollars. Also, it cannot issue or buy U.S. Government backed bonds and bills to adjust the level of the money supply.

Economic unions (EUs) are another form of regulation on currency prices and seem to be a hybrid of the floating and fixed regimes. An EU has already been formed in Europe with first the European Currency Unit (ECU) and then the Euro acting as the unifying currency. According to Sachs, "Such a union might offer the advantages of pegging for closely integrated economies, with the advantages of floating against more distant economies."[44] At first the EU foreign exchange rates were linked to the European Monetary System's ECU, a theoretical weighted basket value of the currencies of EU countries that will participate in the system.[45] Capital

[42] IBID.
[43] IBID.
[44] Sachs.
[45] Simon Wasserman, "The Euro: A Shot Heard Around the Pension Fund World," Compensation & Benefits Review 30.3 (1998): 40-45.

will be able to flow freely between the participating countries while volatile movements in the price of currencies will no longer exist. An economic union can benefit the member countries by lowering currency transaction costs, eliminating exchange rates within the union and increasing foreign exchange stability with other countries outside the union, lowering interest rates and allowing more investments in the region.[46] The later concept of utilizing the Euro as a unifying currency is more like dollarization where each country will slowly replace its domestic currency with the Euro. But as with dollarization, some national sovereignty will be relinquished. In the case of the EU, it seems that less severe national problems such as isolated bank liquidity problems will be handled by the national central banks while a serious crisis affecting the union will have to be handled by a regional authority.[47] By creating a common economic policy, the European Union hopes to increase economic growth, create new jobs and reduce prices in an effort to be able to compete more effectively with the United States and Japan.[48] For many European countries these benefits seem to outweigh the complete loss of national currencies and a partial loss of national sovereignty.

[46] George Marotta, "European Union," Vital Speeches of the Day 65.13 (1999): 398-399.
[47] "Fix or Float?," The Economist 350.8104 (1999)..
[48] Marotta.

II.4 Combining Capital and Foreign Exchange Controls – Examples from Malaysia and Thailand

II.4.1 Limiting Short-Term Capital Inflows

Some governments in emerging markets sought to limit short-term inflows because they were viewed as "highly reversible and speculative in nature."[49] On the other hand, individual banks and private lenders preferred short-term capital inflows in the form of loans or portfolio investments because they could be recalled easily and usually provided higher profits in the form of interest rate differentials. However, on an aggregate level they can be destabilizing if there is a large reversal in the flow of capital. Long-term capital inflows, such as foreign direct investment, are considered to be more stable and desirable because such illiquid investments are not easily reversed.[50] Short-term capital inflows became especially risky because financial institutions did not properly match the short-term inflows with equally liquid, short-term assets. When the crisis began, lenders started to recall short-term loans and both banks and firms were unable to pay. They could not procure the money to repay the loans because much of the money was tied up in long-term projects and could not be liquidated quickly enough to fulfill the capital outflow requirements. The examples from Malaysia and Thailand below detail each country's use of capital and exchange rate controls to limit short-term inflows.

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[49] Akira Ariyoshi, et al., "Country Experiences with the Use and Liberalization of Capital Controls: Part II," The International Monetary Fund January 2000, 12 January 2000 <http://www.imf.org/external/pubs/ft/capcon/index.htm>.
[50] Ariyoshi, et al., "Country Experiences: Part II."

Malaysia

Before the crisis, Malaysia's goal was to maintain high interest rates to contain inflation, but at the same time it wanted to discourage short-term inflows, which high interest rates would promote. The country utilized monetary and exchange control measures to stabilize the financial markets. In 1994, the government introduced direct and regulatory capital controls to curtail the short-term inflows. Malaysia employed a managed float until 1998 when the government decided to fix the ringgit to the U.S. dollar. The authorities also utilized other measures to control capital flows such as implementing interest rate ceilings to narrow differentials between Malaysia and other countries to discourage the inflow of capital due to high interest rates. According to Ariyoshi, Habermeier, Laurents, et al., "These measures were specifically designed to limit short-term capital inflows in the form of bank foreign borrowing and ringgit deposits by banks or nonbank foreign customers."[51] These controls included:

- Prohibiting residents from selling Malaysian money market securities with less than one year maturity to nonresidents
- Prohibiting commercial banks from engaging in forward transactions with nonresidents
- Requiring banks to use asymmetric open position limits, which placed ceilings on banks' net liability positions. This was aimed at curtailing

[51] IBID.

foreign borrowing to engage in portfolio or nontrade transactions. Any foreign borrowings related to trade or classified as FDI were excluded

- Requiring commercial banks to place the ringgit funds of foreign banking institutions with the central bank in non-interest-bearing accounts
- Mandating that inflows of funds from abroad be included in the banks' liability base so that the inflows would be subject to all reserve and liquid assets requirements[52]

The controls, implemented in 1994, caused immediate reactions including the depreciation of the ringgit and a downturn in the stock market. However, at the end of 1994 the controls were lifted when the government felt that the objectives of containing short-term inflows and monetary expansion, and restoring stability to the foreign exchange markets had been achieved.[53]

Thailand

Thailand had a pegged exchange rate and, before 1995, had relatively liberalized capital inflows. And like Malaysia, Thailand had large interest rate differentials that "created strong incentives for interest rate arbitrage and contributed to episodes of high and volatile net capital inflows."[54] The average lending rate in 1995 for Thailand for short- and medium-term capital was 13.25% while it was 8.83% in the U.S. and 3.40% in Japan.[55] The Bangkok International Banking Facilities set up in 1993, was a major facilitator of short-term inflows.

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[52] IBID.
[53] IBID.
[54] IBID.

Capital flowed in large amounts into Thailand's attractive markets. Ariyoshi, Habermeier, Laurents, et al., note that, "The growing size and volatility of these inflows, particularly in early 1995, not only threatened the inflation outlook, but also complicated the implementation of monetary policy in an environment with a fixed exchange rate and a paucity of indirect monetary policy instruments."[56] To slow the capital inflows, the government combined elements of monetary, prudential and market-based capital control measures. Measures that Thailand used to target capital flows included:

- Asymmetric open position limits for short and long positions which placed ceilings on foreign borrowings
- A reporting requirement for banks on risk control measures in foreign exchange and derivatives trading
- A reserve requirement on nonresident baht accounts with less than one-year maturity, finance company promissory notes and banks' short-term foreign borrowings

The controls imposed in Thailand did reduce the volume of short-term capital flows and changed the maturity composition of capital inflows. Short-term inflows as a percent of total capital inflows dropped from 62% in 1995 to 32% in 1996.[57] However, it has been suggested that a deterioration in investor confidence may have also played a role in reducing the volume of inflows or changing their maturity

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[55] IMF, International Financial Statistics.
[56] IBID.
[57] Ariyoshi, et al., "Country Experiences: Part II."

composition.[58] The controls were not enforced as completely as was necessary, so banks took on excessive amounts of risk despite the regulation. Prudential reforms had not taken place to increase bank supervision, strengthen accounting principles and implement risk management. Lack of investor confidence along with a lack of reform led to a sharp reversal in capital flows in 1997 causing an economic downturn.

II.4.1b Limiting Capital Outflows

One of the major motivations for countries to enact controls on outflows was to relieve downward pressure on their pegged currencies. Malaysia did not have a straight peg but rather, a managed float. Thailand, on the other hand, maintained a pegged exchange rate regime from November 1984 until the baht was devalued in 1997. According to Ariyoshi, Habermeier, Laurents, et al., "The controls aimed at containing speculation against the currencies and stabilizing the foreign exchange markets against a backdrop of sharply declining official foreign exchange reserves. Room to use interest rates in defense of the exchange rate was limited."[59] With this limitation, capital controls targeting nonresidents were put into place.

Malaysia

Malaysia combined capital controls with exchange controls to regulate capital outflows in August 1997 after the crisis began. The authorities initially tried to isolate the offshore market from the domestic market because, "Offshore currency

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[58] Ariyoshi, et al., "Country Experiences: Part I."

traders took short positions in ringgit in anticipation of a depreciation; and offshore ringgit (interest) rates increased relative to domestic rates, inducing an outflow of funds."[60] The first attempt at isolating the economy from speculators was unsuccessful and the country resorted to other measures of control. Extensive regulation was put in place in which, "Practically all legal channels for a possible build-up of ringgit funds offshore were eliminated."[61] Other controls included:

- Requiring repatriation of ringgit held abroad. ("Offshore" ringgit were required to return onshore)
- Limiting imports and exports of ringgit currency
- Prohibiting the use of ringgit in trade payments and offshore trading of ringgit assets
- Blocking the repatriation of portfolio capital held by nonresidents for 12 months
- Imposing restrictions on transfers of capital by residents[62]
- Pegging the ringgit to the U.S. dollar

Malaysia's use of regulations was effective in controlling capital outflows and stabilizing the exchange rate. Revisions to loosen the regulations came in February of 1999. Apparently, since implementing the controls, there have been no

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59 IBID.
60 Ariyoshi, et al., "Country Experiences: Part II."
61 IBID.
62 Ariyoshi, et al., "Country Experiences: Part I."

speculative pressures on the exchange rate, "Despite marked relaxation of fiscal and monetary policies to support weak economic activity."[63]

Thailand

On May 15, 1997, Thailand implemented capital controls to try to stabilize the foreign exchange market, restrain speculative attacks on the baht and limit the outflow of capital. One of the controls used was a two-tier currency market. The banks were instructed to suspend all transactions with nonresidents that could facilitate a build-up of baht positions in the offshore market.[64] This action sought to curb a sudden flood of baht into the foreign exchange market, which would put pressure on the currency to devalue if the government could not intervene. Long-term capital inflows such as foreign direct investment were exempt from these regulations. Initially, the controls seemed to be effective. Speculative attacks ceased for a period of time but controls were eventually circumvented and by July, the baht had been devalued.

II.5 Moral Hazard

The weaknesses in an economy's financial structure, either created by or made unstable by a conflicting combination of regulation and liberalization, are further exacerbated by moral hazard. It is considered by some scholars to be a major factor contributing to the Asian Financial Crisis. This problem occurs frequently in heavily regulated markets with extensive government intervention. Moral hazard

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[63] IBID.

arises when the party to be insured can affect the probability or magnitude of the event that triggers payment.[65] Participants may take imprudent risks without fear that they will have to suffer the consequences if losses are incurred. This situation can occur anytime explicit or implicit guarantees are made by the government that will protect participants against the potential losses associated with their decisions. Governments in some East Asian countries guaranteed billions of dollars worth of loans creating incentives in the banking industry to take on excessive risk. Altered behavior can range from failure to control risk exposure or failure to conduct thorough credit analyses to unethical or even criminal actions.

Moral hazard is described most easily by using a specific insurance example. A business owner who purchases insurance on factory buildings knows that if anything happens to damage or destroy the buildings, the company will be reimbursed. This may lead him to commit arson if he feels that he is certain he will not get caught. However, not all moral hazard situations will lead to criminal acts. It is more likely that the owner may decide against the extra expense of running a fire prevention program for employees because he is insured. This is similar to a situation involving car insurance. Car owners may be less likely to take precautionary measures against theft knowing that they will be reimbursed for their loss if the car is stolen.

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[64] IBID.

[65] Robert S. Pindyck and Danel L. Rubinfeld, Microeconomics, 4th ed., (Upper Saddle River, NJ: Prentice-Hall, Inc., 1998) 629.

Insurance initially arose to cover the losses caused by unexpected or unintended accidents. The same is true for the financial sector. Schinasi, Drees and Lee contend that, "Because financial stability is a public good, the public sector must provide insurance to protect against systemic problems."[66] It is considered a public good because the losses caused by an unanticipated collapse of a bank, which in turn affects other financial institutions or other markets, are too large for individual market participants to bear. Schinasi, Drees and Lee further state that without insurance, "Private market participants may collectively be unwilling or unable to take even acceptable risks, which could inhibit financial intermediation."[67] In the United States, deposit insurance was developed to protect small savers and facilitate economic growth. After the financial crises in the late 19th and early 20th centuries the government developed deposit insurance based on the rationale that, "...confidence in the banking regime was essential to economic growth."[68] Social responsibilities also facilitated the growth of deposit insurance. The government felt that, "Protecting small savers against the irresponsibility of the bankers in whom they had put their trust came to be seen as only fair and just."[69] Deposit insurance can create incentives for bankers to take on excessive amounts of risk since the government will insure each depositor up to a certain amount. Higher amounts of risk are usually associated with a higher rate of return, which compounds the

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[66] Garry J. Schinasi, Burkhard Drees, and William Lee, "Managing Global Finance and Risk," Finance & Development 36.4 (1999): 39.
[67] IBID.
[68] Philippe F. Delhaise, Asia in Crisis: The Implosion of the Banking and Finance Systems (Singapore: John Wiley & Sons, 1998) 34.
[69] IBID.

temptation to engage in excessive risk-taking by the firm. However, though there is a potential for a high return it is not guaranteed and with a risky investment the downside will generate greater losses than a "safer" investment. For moral hazard to be an issue, the firm must believe that it will not have to pay for large losses incurred by undertaking excessively risky investments.

In the context of the Asian Crisis, Charles Calomiris believes that moral hazard has two components. He contends that, "The demand side relates to the behavior of developing country banks and corporations, which respond to initial adverse shocks by increasing credit and exchange rate risk exposures."[70] In the case of several Asian countries, the reason for increasing their risk was to find a cheaper source of debt. Interest rates increased in Thailand to offset the risk of domestic currency depreciation. The Thai baht was consistently mispriced due to the peg and by 1995, it was considered overvalued by 9%.[71] Banks sought lower interest rates to fund lending within the country and found dollar denominated debt to be very attractive. This situation had a great potential for losses considering the risk of currency devaluation was very high due to speculation on the overvalued currency. However, according to Calomiris it did not matter to the banks because they expected that "this potential capital loss would be shared with taxpayers (through government protection of borrowers in the event of an exchange rate collapse)."[72]

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[70] Charles W. Calomiris, "The IMF's Moral Hazard," 5 August 1998, 6 April 2000 <http://www.aei.org/ra/racalomiris.htm>.
[71] Delhaise 89.
[72] IBID.

This view was reinforced by the assumption that some financial institutions are considered "too big to fail".

It is thought that the demise of large banks would wreak havoc on the financial system and impose costs on society. This is a significant argument in countries like Thailand where there are few financial institutions. However, Delhaise argues that even in countries with many financial institutions there are usually one or two strong banks that hold the system together and that their collapse would bring economic disaster.[73] The assumption that a bailout would occur was well founded since both the government and the IMF worked together to form rescue packages. In Korea, even though creditors have agreed to rollover 95% of the US$22.5 billion in short-term debt outstanding the government is still guaranteeing that the full amount will be repaid.[74] During the crisis, the IMF engineered a $17.2 billion bailout package for Thailand on August 20, 1997, a $23 billion bailout package for Indonesia on October 31, 1997 and a $57 billion bailout package for Korea on December 4, 1997.

The supply side of moral hazard reflects "foreign lenders' willingness to provide short-term dollar debt to insolvent borrowers"[75] in the midst of a crisis. Foreign banks that lent to the banks in Thailand, Korea and other Asian countries during the crisis felt protected by the respective governments and the IMF. Even

[73] Delhaise 35.
[74] Nicola Bullard, Walden Bello, and Kamal Malholtra, "Taming the Tigers: The IMF and the Asian Crisis," Tigers in Trouble: Financial Governance, Liberalisation and Crises in East Asia, ed. Jomo K.S. (New York: Zed Books, Ltd, 1998) 131.
[75] Calomiris.

though creditors did not receive explicit guarantees from the governments, the impression was given that lenders would be protected from risk. Lending institutions were then more willing to make loans without conducting careful credit analysis. The perception of a guarantee was reinforced by the strong political connections of the owners of most financial institutions.[76] Some critics of the IMF point to the rescue of Mexico in 1995 as strong evidence that international lenders are permitted to escape their responsibility in allowing, "excessive lending for unproductive purposes."[77] Schinasi, Drees and Lee note that, "Ultimately, each time the public sector intervenes to save institutions, it creates expectations that it will intervene on future occasions. Moral hazard is the result."[78] However, other researchers point out that even if moral hazard does occur minimally, the IMF would reply that, "the only way to regain foreign investor confidence is by guaranteeing them against risk."[79] Proponents of the bailout note that without the help of the IMF, the Asian countries would have spiraled into a lasting depression affecting millions of people. J. Bradford Delong asks the question, "Is it worth throwing 20 million more East Asians out of work just to make sure that there is not even a possibility of encouraging moral hazard?"[80] But if the moral hazard problem continues then the effects in the long run may be even more severe as financial markets become riskier and the diversity and selection in securities increases. With

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[76] Paul Krugman, "What Happened to Asia?," January 1998, 6 April 2000 <http://web.mit.edu/krugman/www/disinter.html>.
[77] Delhaise 200.
[78] Schinasi, Drees and Lee 41.
[79] Bullard, Bello and Malholtra 126.

an increase in opportunities and risk involved, rates of return will increase making risky investments more tempting. Companies and countries both need to incorporate risk management practices but each know that international organizations are unlikely to withhold aid in a crisis situation. The social costs of a financial crisis are so high that providing assistance is almost always guaranteed.

Governments and firms utilize various forms of insurance to prepare for unexpected losses that may occur. To keep these guarantees effective without creating vast opportunities for moral hazard precautions and prudential procedures need to be implemented. Schinasi, Drees and Lee suggest that, "One way to limit moral hazard is to make more frequent decisions that reduce the perception that interventions are the rule and failures the exception."[81] They recommend reducing the size and scope of safety nets. Also, moving some of the responsibility away from the public sector and into the private sector will improve risk management. Improvements should seek to increase monitoring of financial institutions, to provide education in credit risk and exposure, to increase awareness of the link between private sector actions and systemic instability, and to promote vigilance and flexibility in preparing for financial problems.[82] But even if some of these measures are implemented they may have only minimal affect in curbing moral hazard completely.

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[80] J. Bradford Delong, "East Asia: The True Moral Hazard," 26 January 1998, 6 April 2000 <http://econ161.berkeley.edu/OpEd/East_Asia_Moral _Hazard.html>.
[81] Schinasi, Drees, and Lee 41.

II.6 Controls as a Means for Reform

It has been established that regulations are usually implemented for purposes of stabilizing the economy. Less volatility in an economy helps to encourage growth and allows strengthening of the financial structure to occur. Governments have developed many different ways to regulate the inflow and outflow of capital and control the exchange rate. If executed properly, controls can lead to lower inflation while allowing growth to continue in the economy. But there is always confusion regarding the developmental state of an economy and the correct controls to implement. Economists do not agree on which exchange rate regime gives the greatest amount of benefit while scaling back on the risks. Some exchange rate controls work well for a period of time and then succumb to a currency crisis while others remain in place. Whether a floating or fixed regime is set as the standard set for every economy should not be the issue. According to the World Bank, "Over the past 30 years more crises have befallen countries with flexible than with fixed exchange rates, though they have been more severe for fixed-rate countries."[83] Crises usually involve a conflict of the exchange rate regime and other governmental policies that will be exacerbated by weaknesses in the economy's financial structure.

Controls can emphasize weaknesses and may ultimately lead to the downfall of the economy if careful reforms are not taken. Conflicting regulations can cause a moral hazard problem where different stakeholders in the economy take excessive risk without the threat of being held accountable. These risks can lead to further

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[82] IBID.

weaknesses and the ultimate collapse of the financial structure. Circumventers seek to identify flaws in the regulation and take advantages of them in a search for better economic opportunities. This search for a more efficient access to capital will contribute to the eventual breakdown of the regulations. Capital controls and exchange rate controls should be utilized to control volatility until the financial structure can be strengthened with strong procedures and accountability policies. Regulation, if implemented correctly, will help a country start on the correct path towards a solution but it is not a solution within itself.

[83] "Fix or Float?".

Chapter III

FINANCIAL MARKET LIBERALIZATION

III.1 Introduction

Liberalization of financial markets refers to the removal of laws and regulations that restrict the free movement of capital, limit the range of customers and suppress competition domestically or internationally. Financial markets have six basic functions: 1) To provide ways of clearing and settling payments to facilitate the exchange of goods, services and assets; 2) to provide a mechanism for the pooling of resources to undertake large-scale projects or for subdividing of shares in enterprises to facilitate diversification; 3) to provide a way to transfer economic resources through time, across geographic regions and among industries; 4) to provide ways to manage uncertainty and control risk; 5) to provide price information that helps coordinate decentralized decision making in various sectors of the economy; and 6) to provide a way to deal with the incentive problems that occur when one party to a financial transaction has information that the other party does not.[84] When financial markets are regulated, assets may not be efficiently allocated. And though this paper has argued that regulation may provide a buffer against world shocks until a strong financial structure can be put in place, it also emphasizes that regulation is not an end in itself. Regulation can be circumvented and conflicting policies can create weaknesses that induce market participants to

[84] Dwight B. Crane, et al., The Global Financial System: A Functional Perspective (Boston: HBSP, 1995) 12-16.

innovate to find better opportunities. Lobbying for freedom from specific controls may also occur if domestic firms feel that deregulation will allow greater access to credit and trade options. If strengthening reforms are not put in place then these actions can weaken the entire financial system since it was designed in the context of a specific regulatory environment.

Liberalization can be the first step in the pursuit of better economic opportunities. It can have a significant affect on growth and interconnectedness with international financial markets. The rapid growth achieved in East Asia is linked to the increase in international trade promoted by those countries. However, at the same time openness to international financial markets occurred because growth in trade needed a corresponding growth in capital flows. FDI plays a significant role because a small, developing nation may not have enough of its own capital to invest in expanding factory production, buying needed machinery or acquiring adequate technology. Liberalization can open the door to greater world trade, better financing opportunities and increased growth. But while liberalization has many potential benefits it also has corresponding risks and costs. Nevertheless, what many countries have found is that the expected benefits of liberalization outweigh the expected costs.

III.2 International Trade and Financial Markets

Trade in goods and services and financial markets are inextricably linked. This can be illustrated using the current account and the capital account for an individual nation. The current account records all of the inflows and outflows (i.e. Imports and Exports) of goods and services, as well as investment instruments, for a country. If a nation has a current account deficit then, in simple terms, it is importing more than it is exporting. The capital account, on the other hand, records the inflows and outflows of capital for a nation and, in contrast to the current account, a deficit occurs if outflows are greater than inflows. Ignoring changes in reserves, these two accounts should offset each other because a trade imbalance needs to be financed by capital inflows from the sale of exports or the accumulation of debt. The accumulation of debt usually occurs when foreign residents buy domestic securities, bonds, equities, or extend bank loans to domestic agents. Prior to the crisis, Thailand's current account had a slight deficit that was financed through international transactions in the capital account. After the crisis, Thailand had current account surpluses in 1998 and 1999 because it was exporting large amounts of goods and services compared to what it was importing. When trade increases between countries and large differentials occur between exports and imports, capital flows will increase to offset the differential. Capital flows are facilitated by the growth and liberalization of financial markets. Even closely regulated financial markets may, out of necessity, start to liberalize when trade expands. Some examples include; Indonesia's liberalization of most its capital account transactions in 1971, Korea's deregulation of almost all interest rates in 1995 and Thailand's introduction of the Bangkok International Banking Facilities in

1993.[85] Philippe Delhaise supports this explanation in his book, Asia in Crisis, "In short, countries that wanted to be part of the world's trade game became part of the world's financial scene."[86]

Although, the liberalization of financial markets began out of the necessity to expand with the growth in trade, other factors also contribute to the change. There is a circular pattern in which, traders need to borrow foreign exchange and trade imbalances need to be financed (Please refer to Exhibit E below). These transactions are accomplished through the financial market. In turn, better access to credit in the financial market spurs trade and investment. To detail this cycle more specifically, as financial markets expand, regulated domestic firms need to innovate and circumvent controls to compete with foreign institutions. Innovation leads to the firms' increased presence in the global market and expands economic opportunities. Technology is also a strong driver of innovation. The introduction of computers, faxes, and advanced telecommunications has accelerated financial market liberalization. With more innovation comes greater competition. As the competition increases, some domestic firms begin to lobby for deregulation because they are at a competitive disadvantage with their foreign counterparts. Access to global trade and capital markets contribute to the continuing growth of domestic industries and the economy as a whole. Deregulation, like innovation, also leads to

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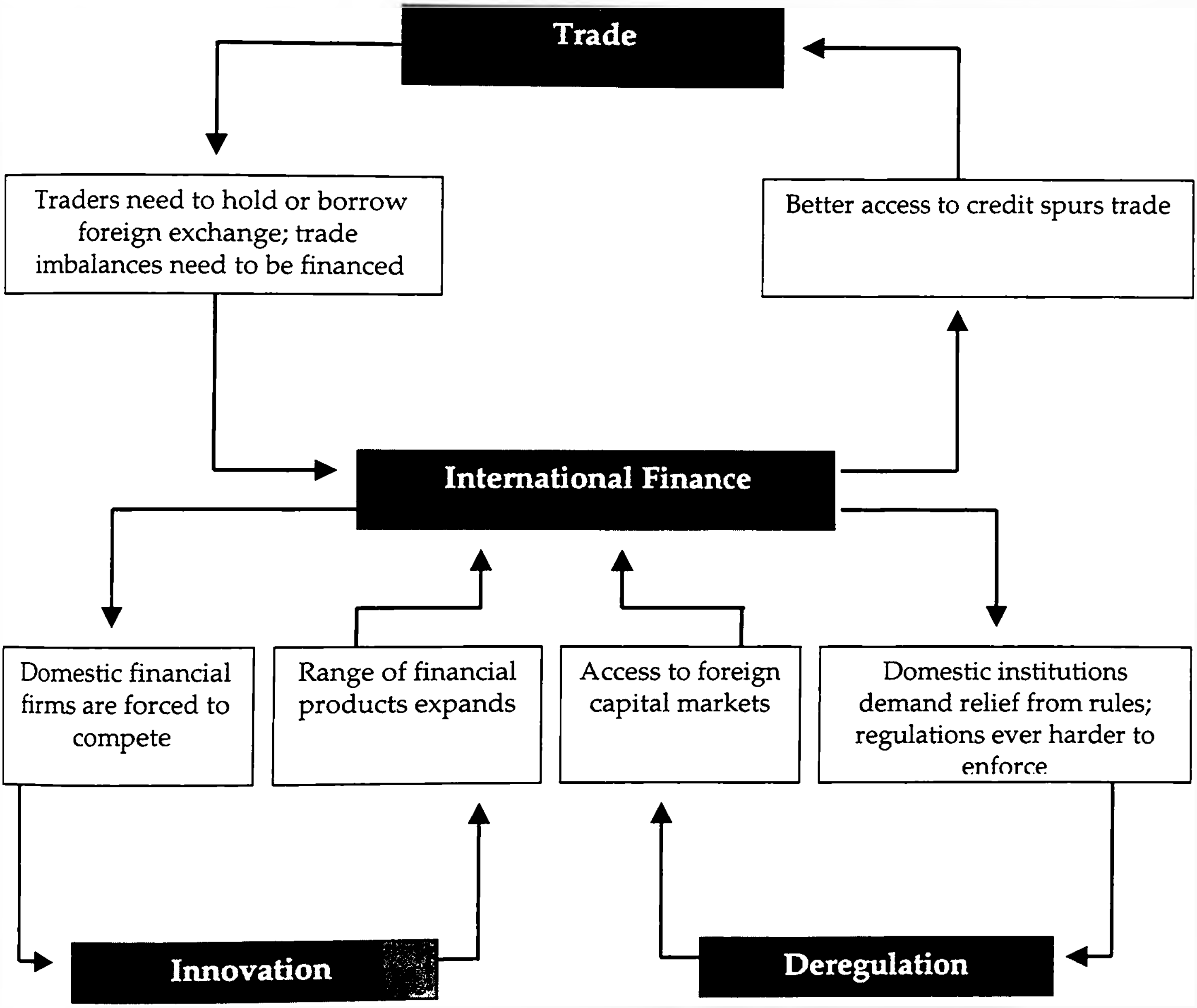
[85] Beim and Calomiris 139-141.
[86] Delhaise 16.

Exhibit E

Trade Liberalization Diagram[87]



[87] Crook, 10.

an expansion of financial markets.[88] Essentially, international trade has fed the growth of financial markets, which in turn must innovate and remove regulatory barriers to compete and stimulate trade. There are substantial benefits that come from the growth in international trade and financial markets but as shown by the Asian Crisis the costs can also be severe.

III.3 Risks and Costs

Financial markets differ from country to country. Variations include types and responsibilities of institutions, legal and regulatory frameworks, roles of supervisory authorities, and exchange rate regimes. This heterogeneity presents problems in implementing liberalizing policies because specific changes that are effective in one country may be ineffective or counter-productive in another. There is no prescribed theory on how to implement liberalizing policies "across the board" because political and economic goals of each nation are so diverse. Also, in emerging markets, there is a lack of accurate and timely information about specific companies, financial markets and the economy as a whole, which complicates the task of liberalization. The increase in global capital flows, in general, will continue to make financial markets riskier because they are interconnected. Shocks from economic and political fluctuations in one economy may be able to travel more rapidly from one country to another in the absence of buffering regulations. There may be a recession, a foreign exchange crisis, a banking crisis or a full-fledged

[88] Crook 10.

financial crisis that starts in one country and quickly travels to another. Trying to decide how to implement liberalizing policies into an economy is a strenuous job but predicting a crisis that can result from implementation is even more difficult.

The potential risks and costs associated with liberalization are best illustrated by using detailed examples. This section focuses on the experiences of Thailand and Korea, which were both hit hard by the Asian Crisis. Thailand was struck by severe banking and foreign exchange crises in July 1997, which, like a contagious disease, spread to other countries around East Asia. Indonesia, Malaysia and the Philippines were quickly affected, but the Korean crisis did not appear serious until November. Experiences in Thailand and Korea were quite different, in part because they are in different stages of economic development. Thailand was considered to be part of a less-developed group of East Asian countries referred to as the "Emerging Dragons" that included Malaysia and Indonesia. In contrast, Korea was part of a more developed group of East Asian countries called the "Asian Tigers", including Hong Kong, Taiwan, and Singapore. Thailand was chosen from the first group because it is cited as the trigger for the whole crisis and was the most severely affected excluding Indonesia. Much of the turmoil in Indonesia actually stemmed from a corrupt, unstable political system. Korea, on the other hand, is a representative of the more developed East Asian countries and again appears to have been the hardest hit from its group. Both countries took liberalizing steps without instituting necessary strengthening reforms.

III.3.1 Example from Thailand

III.3.1a Liberalizing Activities

In the Thailand of the 1980s, equity markets were relatively small, there were few opportunities to acquire long-term financing, and the banking sector was limited to a small number of domestic banks and finance companies.[89] For the most part, foreign companies were not allowed access to Thai markets. The nominal exchange rate was pegged to a basket of currencies in November 1984, but the dominant currency in the basket was the dollar. The dollar began appreciating against the currencies of many of Thailand's trading partners in 1996 including Japan and Hong Kong. The baht, tied to the dollar, also appreciated against the yen making Thai goods relatively more expensive to Japanese consumers. To maintain the peg, the Bank of Thailand (BOT), Thailand's central bank, would intervene in the foreign exchange market when necessary to stabilize the currency. The baht carried an interest rate premium since it was perceived to be riskier than the dollar even though there was also a perception that the Bank of Thailand would be able to defend the currency if necessary. Before the July 1997 Currency Crisis, Thailand grew rapidly. Its Real GDP grew 6.5% in 1996[90], and average real growth was 7.86% during 1992-1996.[91] Also, interest rates were relatively high compared to industrialized countries and it appeared the pegged exchange rate would remain

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[89] Delhaise 82.
[90] The Department of State, Thailand: 1998 Country Report On Economic Policy and Trade Practices, report submitted to the Senate Committees on Foreign Relations and on Finance and to the House Committees on Foreign Affairs and on Ways and Means, 31 January 1999 <http://www.tradeport.org/ts/countries/thailand/ecopol.html>.
[91] Delhaise 86.

stable. Compared to the United States, Thailand's lending rate was consistently 2-5% higher from 1982 through 1997.[92]

Since the 1980's, the country took steps toward liberalization with the support of the IMF and the World Bank. Liberalization helped promote the attractiveness of Thailand's investment climate. The first liberalizing action took the form of abolishing directed credit during 1980s. Interest rate ceilings were then removed in 1990,[93] and Thailand began to accumulate foreign exchange reserves. Easing of regulatory restrictions took place by eliminating "daily deposit limits on state enterprises, allowing commercial banks to enter foreign currency transactions without BOT approval and the end of the prohibition against Thai nationals holding foreign currency accounts."[94] All of these actions helped to boost foreign currency reserves by allowing capital to flow more freely and removing the necessity to "work-around" the rules to encourage business to move smoothly. Nicola Bullard further notes that there was a "dismantling of all significant foreign exchange controls,"[95] which in turn led to the establishment of the Bangkok International Banking Facilities (BIBF) in 1993. The creation of the BIBF encouraged investment in Thailand and, for the first time, allowed foreign banks commercial access to Thai markets.

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[92] IMF, International Financial Statistics.

[93] Beim and Calomiris 141.

[94] Lex Mundi, World Report 8.3 (1996), 15 January 2000 <http://www.eworldreports.com>.

III.3.1b Special Interest Groups and the Government

Thailand was dominated in the 1990s by a succession of governments that accomplished little due to constraints from special interest groups. With the constant change in the prime minister, power was placed in the hands of appointed and elected officials who maintained their positions throughout the upheaval. These individuals could be influenced by outside parties with power and money. In an article by William Gamble discussing bankruptcy law in Thailand, Professor Bovornsak Uwannoold Dean of Chulalongkorn University's Faculty of Law maintains that:

> Thailand has a heritage of dictatorial politics and the remnants of the old authoritarianism. This resulted in a legal system, which is deeply mired in power centralization, patron-client relationships and laws favoring those in power. With unchecked power in all levels of law enforcers, the result is widespread abuse and corruption.[96]

Drafting legislation for approval was difficult if powerful special interest groups were not in favor of the new laws. Also, if new regulations were passed, enforcement was minimal due to the intervention of the same special interest groups. Suppose a powerful bank owner wanted to halt legislation that brought foreign competition into the market. This person's greatest opponent would most likely not be the government but rather another bank owner who wants the foreign competition to enter and absorb his own weak institution. According to Linda Lim, "Thailand's short-lived coalition governments (five in six years), frequent general

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[95] Bullard, Bello and Malholtra 86.

elections and extensive vote-buying made it particularly vulnerable to vested interest opposition to the fiscal and monetary contraction necessary to correct an external imbalance."[97] Powerful business interests fought hard to keep contractionary policy from passing, since such policies would slow the rate of growth in Thailand. Before devaluation of the Baht on July 2, 1997, the Thai government also went through a shaky change of power with the appointment of four different finance ministers and three central bank governors in the year prior.[98] Government instability and lack of performance did not encourage domestic or international confidence.

III.3.1c Bankruptcy Issues

Until the crisis, Thailand had limited legislation and an inefficient process for dealing with bankruptcy. The original laws regarding bankruptcy were written in 1940 and were not updated until the IMF pressured Thailand to do so in 1998. According to William Gamble, "The main problem with the old law was that it gave creditors and debtors very limited and often drastic alternatives. If a bankruptcy suit was filed, there was no possibility of reorganization, only liquidation. There was also no legal protection for new financing. Foreclosure was and still is almost

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[96] William Gamble, "Restructuring in Asia - A Brief Survey of Asian Bankruptcy Law," Emerging Market Strategies 13 April 1998, 15 January 2000 <http://www.stern.nyu.edu/ ~nroubini/ asia/AsiaHomepage.html>.
[97] Linda Y. C. Lim, "Whose 'Model' Failed? Implications of the Asian Economic Crisis," The Washington Quarterly 21.3 (1998): 25-36.
[98] IBID.

impossible."[99] It has always been difficult for creditors to recover debt due to the levels of approval that are necessary, the lengthy court process that may take over five years and the inherent inefficiencies of a corrupt process. Even if a claim is settled after five years it is unlikely that the amount recovered will match the original claim. Gamble quotes Professor Bovornsak Uwannoold Dean of Chulalongkorn University's Faculty of Law, "Our system lacks the necessary ethics for fair distribution of resources. The quality of the legal system is seriously lacking. Delayed justice is actually denial of justice. But in Thailand, we view such delays as normal."[100] If the creditors were foreign then "they had to go through the motion of establishing that their country of domicile was granting Thai creditors similar rights – which were presumably better rights."[101] Also, if the claim was in a foreign currency, the amount was frozen in its equivalent value in baht at the time the proceedings were initiated. Therefore, "Any negative development in currency markets would eat away at the face value of the original claim."[102] Compromising with the borrower would be the only way to get around the court system so the lender could regain a larger portion of the claim.

The new laws adopted in 1998 included legislation regarding bankruptcy procedures and a plan that allows businesses to reorganize. According to new laws, "The courts and the judges are given power to guide the process very closely to the end. It was estimated that any proposed reorganization plan would take between

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99 Gamble.
100 IBID.
101 Delhaise 98.

three to six months for court approval."[103] Also, the government expanded the types of assets, which are recoverable during bankruptcy proceedings. Speeding up the process was also an issue addressed by the new legislation. A new specialized bankruptcy court was created and new amendments to the law clarified problems associated with new loans granted to a company in the reorganization process. Preferential treatment has been granted to lenders extending funds to reorganizing corporations but the law does not extend "the same preferences to creditors of corporations, who cannot agree on a reorganization plan."[104] The new laws encourage creditors and managers to work out plans in order to keep a viable business running rather than just liquidating all of the assets since that process can be more costly and time consuming.

III.3.1d The Devaluation of the Baht

Thailand's high growth required investment that could not be financed solely with domestic savings, which is why banks sought foreign capital. The government was encouraged to liberalize by the IMF and World Bank. The goals of the country were to liberalize the financial markets, keep the baht stable, if possible, and encourage foreign investment to fuel growth.[105] As mentioned before, Thailand began by dismantling many of its foreign exchange controls. Other types of financial liberalization included the removal of constraints on the portfolio

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[102] IBID.
[103] Gamble.
[104] Gamble.

management of financial institutions, looser rules on the expansion of the field of operations of commercial banks and financial institutions and the establishment of the Bangkok International Banking Facilities.[106] Also, the domestic financial industry was deregulated and banks had more freedom in matters of asset mix and interest rates.[107] Foreign lenders provided inflows of capital through Foreign Direct Investment (FDI), banks deposits, short-term loans and purchases of securities. Large portions of this capital went to real estate investment driving the prices up in this sector.

The exchange rate was put under enormous pressure to devalue as the differential between the nominal and real exchange rates for the baht against the yen and dollar increased. This differential was caused by the fact that inflation was high relative to the United States while the nominal exchange rate remained virtually constant because of the peg. Instead of pegging the baht to the dollar it would have made more sense to link it to a basket of currencies more representative of Thailand's trading partners. As the baht, pegged to the dollar, appreciated against the yen Thai exports declined dramatically. For the United States, the higher level of inflation in Thailand drove the price of Thai exports up. In Japan, the relative cost of Thai exports rose even more dramatically combining the higher inflation in Thailand with the appreciation of the baht relative to the yen. Between 1995 and 1996, the

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[105] Delhaise 85.
[106] Bullard, Bello, and Malholtra 86.
[107] Delhaise 84.

volume of Thai exports dropped 10%.[108] If Thailand had pegged its currency to the yen or a basket of Asian currencies where the yen was more dominant then the prices of Thai exports would have remained relatively stable for its major trading partners. Also, the baht would have depreciated relative to the dollar, making Thai exports cheaper in the United States. For Thailand to maintain the currency peg and prevent devaluation, the BOT had to intervene extensively in the foreign exchange market to buy baht with reserves of hard currency. Before the crisis, Thailand had US$33 billion in reserves for intervention but during the crisis even this amount did not prove to be enough when the currency came under attack from speculators who thought it was overvalued.

Another factor in maintaining a pegged exchange rate is the confidence of the domestic and international public. Thailand tried to hide its reserve losses in the foreign exchange market. It accomplished this by using swap transactions. A swap transaction combines a spot transaction and a reverse transaction in the forward markets for approximately the same amount. The spot transaction involves delivery within 48 hours. The forward transaction calls for delivery at an agreed time, for example three or six months ahead. The forward rate is slightly different from the spot rate to recognize that one party will have the use of funds in a high interest rate currency for six months, while the other party will have use of funds in a low interest rate currency. The spot transaction is entered on the balance sheet because

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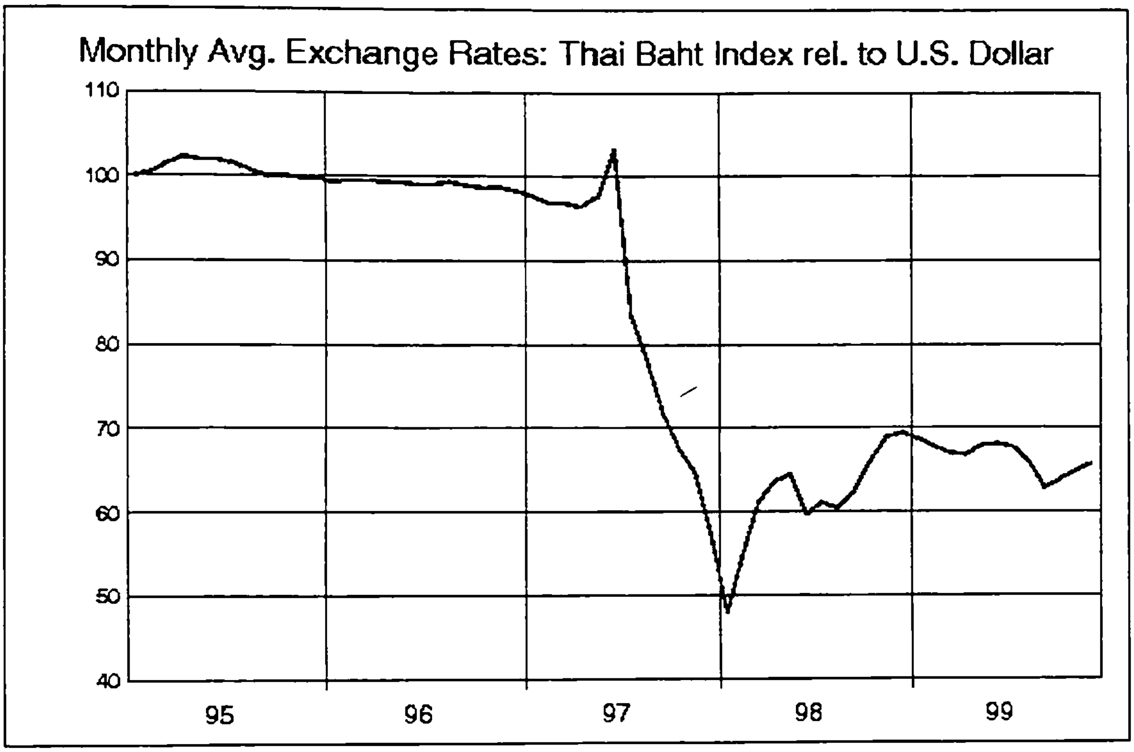
[108] IMF, International Financial Statistics.

Exhibit F



Note: This graph shows the devaluation of the Thai baht relative to the U.S. dollar in July 1997. Source: Pacific Exchange Rate Service delivery takes place almost immediately. The forward transaction is only a promise to deliver and, therefore, it is an off-balance sheet item. When funds are actually exchanged later, the values are recorded on the balance sheet. However, the BOT deliberately did not record forward transactions on its off-balance sheet accounts so a net amount of reserves much lower than the stated amount did not surface until after the crisis.[109] At one point while still maintaining approximately US$33 billion in reserves, the BOT shorted US$30 billion in the forward market.[110] The BOT recorded the spot transaction of baht but not the future delivery of dollars. If the transactions had been reconciled properly then the net amount of reserves would have been equal to approximately US$3 billion. Thailand invested a significant amount of time and resources trying to delay the inevitable devaluation of its currency and in the long run hurt its economy more from huge losses of both value and consumer confidence.

Another market where Thailand was affected was real estate. The huge inflow of capital increased real estate price levels. However, the market was not able to sustain the price increase. According to Philippe Delhaise:

> A large chunk of excess foreign lending and investment went to property: Bangkok is lined with half-finished buildings, while many of those that were built in recent years lay empty. In the best of times, it would take at least five years for Thailand to absorb the excess capacity. If the present circumstances prevail, close to 10 years will be needed.[111]

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[109] Delhaise 91.
[110] IBID.
[111] IBID 88.

The real estate market collapsed, which in turn affected the banking sector because loans would not be repaid. Banks had distributed a large portion of the capital inflows from foreign lenders as loans for real-estate projects that lay unfinished or unprofitable due to low demand. Since banks could not call these loans, they could not repay their own foreign creditors.

III.3.1e Banking Industry

The Bank of Thailand was considered a "benevolent" regulator. It helped banks when necessary and was lenient in enforcing policies. Policies concerning the transparency in financial statements were among those loosely followed. Transparency refers to the creation of and adherence to rules of disclosure that allow outsiders to understand what is happening within an institution. In these terms, transparency is limited in Southeast Asia and especially in Thailand. Banks frequently engaged in risky practices to maintain their profitability ratios and were able to keep these practices hidden by manipulating the financial statements. In Thailand, "Individual banks were allowed to camouflage their non-performing assets and to rehabilitate themselves over the years."[112] This strategy worked for a period of time because of the incredible growth that was occurring in Asia. The growth allowed companies that would have normally failed a chance to continue with business for as long as the extraordinary growth sustained. However, when growth rates fell to a more sustainable level, weak businesses were unable to survive

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[112] IBID 82.

and failed anyway. Lenient enforcement of accounting standards perpetuated this problem by allowing banks and firms to hide losses. Adding to this was the banks' confidence that the Bank of Thailand would most likely bail them out if necessary. Before the crisis, the Bank of Thailand permitted banks to "bypass the Profit & Loss statements and deduct provisions straight from equity."[113] For as long as they were allowed to hide risky activity in their financial statements, the bank managers knew that they would not be punished for making bad loans and incurring enormous levels of uncovered risk. This was done to boost profitability and consumer confidence. In actuality, this practice just hid a multitude of problems.

Until the 1990s, Thailand was closed to foreign financial institutions with one exception. Those institutions could own a minority interest in any non-bank. The Bangkok International Banking Facilities (BIBF) were created to allow foreign institutions limited access to local markets. The changes in the banking industry also allowed the introduction of new domestic banks into the market and the BIBF status was extended to new and old domestic banks alike. In spite of Thailand's high saving rate, domestic savings was insufficient to sustain rapid growth. Thai banks sought foreign capital with relatively low interest rates and exploited the available foreign investment opportunities. Foreign capital was relatively simple to find since Thailand was seen as "one of the most promising emerging markets in the region"[114] with superior investment opportunities. Access to foreign markets would allow Thai residents to locate funds with more favorable interest rates to use in

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[113] IBID.

domestic projects. Also, the introduction of foreign banks would increase the competition in the banking sector, which would in turn improve efficiency. Another reason for setting up the BIBF was linked to the reacquisition of Hong Kong by China. Hong Kong had long been a financial center in East Asia but Thailand was interested in taking over part of this position. According to Kamal Malholtra, one of the objectives of setting up the BIBF was "to transform Bangkok into a regional financial center, wherein banks and other financial institutions would bring in capital from abroad to loan to clients for investment outside Thailand."[115]

Initially, the BIBF members were allowed access "to promote purely offshore transactions whereby banks borrow from overseas and lend overseas, without any interaction with domestic activities."[116] However, there were no restrictions regarding the geographic distribution of assets in the books of BIBF banks. Assets could originate from inside and outside Thailand. Banks took on an "Out-In" approach to business, which means that the liability side (their creditors) is offshore (outside of Thailand) while the asset side (their debtors) is onshore (inside of Thailand). This is in contrast to an "Out-Out" strategy where both sides are offshore.[117] It is estimated that in 1997, "65% of all BIBF assets were of the OUT-IN variety, a deviation that was probably not intended by authorities."[118] As mentioned before, Thailand presented attractive investment opportunities because interest rates

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[114] IBID 85.
[115] Kamal Malholtra, "Globalisation, Trade and Financial Liberalisation: The Case of Thailand," Structural Adjustment Participatory Review International Network Website, 5 March 2000 <http://www.igc.apc.org/dgap/saprin/thai.html>.
[116] Delhaise 83.
[117] IBID.

in Thailand were higher relative to the United States and the baht peg to the dollar seemed stable. But other factors also led to Thailand's magnetism for foreign funding. Molhatra notes in his report on Thailand that, "Rising production costs in OECD countries and technological improvements in the financial sector combined to unleash an unprecedented wave of global financial flows."[119]

The BIBF banks became the major entry point for capital inflows. By 1995, the loan inflows comprised more than 50% of the country's GDP and by 1998, the debt was 200% of GDP.[120] Banks, investment houses and pension funds rapidly moved large amounts of short-term capital into the country. A large portion of these capital inflows became short-term liabilities denominated in a foreign currency for the banks in Thailand. These liabilities presented a threat because the high-volume of short-term debt denominated in a foreign currency was not backed by assets denominated in the same currency and maturity. Bank assets and liabilities were mismatched. Much of the banks' assets were loans in "highly non-liquid property investments and long-term projects."[121] Long-term assets are not as easily liquidated if the economic environment changes and the banks' short-term liabilities are re-called unexpectedly. Banks can protect themselves by holding quasi-liquid assets such as government bonds, interbank deposits and marketable securities. They are 'quasi-liquid' because they are not converted as easily as short-term assets but with much less difficulty than long-term assets. Thai banks were clearly

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[118] IBID 84.
[119] Malholtra.
[120] Malholtra.

exposed to the risk of capital flight created by the unwillingness or inability of banks to hedge, the lack of supervision from the Bank of Thailand and the lack of adherence to risk assessment policies.

The BIBF lending was responsible for 60% of Thailand's short-term debt[122] much of which could not be connected to any credit risk analysis. Mismatching of assets and liabilities significantly raised risks but the problem was compounded because capital flows are also affected by changes in the exchange rate. Large portions of the loans made by Thai banks were denominated in dollars or another foreign currency. However, businesses receive payment for goods and services in the form of the local currency, in this case the baht. As the exchange rate moves, the debt servicing on the loans fluctuates accordingly. If the baht devalues against the dollar and ultimately loans need to be repaid in dollars then it becomes much more expensive to do so. In the case of Thailand the baht devalued and was allowed to float against the dollar causing the baht-value of loans to increase dramatically so many firms were unable to make debt service payments. Suppose a Thai firm has a loan on which it pays US$500 (equivalent to Bt 2500) a month when US$1 is equal to 5 baht. If the baht were to devalue to 10 baht per US$1 then the payments on the loan would now equal Bt 5000 per month. Non-performing loans were already a problem in Thailand so the devaluation added more loans to this category. As

[121] Delhaise 93.
[122] Malhotra.

shown in the graph below,[123] by 1997 almost 20% of all Thai loans were non-performing meaning that payments had not been made for 12 months or more.

Exhibit G

III.3.1f Short-Term Capital Flows

Before the crisis, the capital account had been liberalized on the inflow side. Short-term capital flows are seen as less risky by the individual lender because they can be re-called easily. However, from the aggregate level they can be destabilizing if there is a large reversal in the flow of capital so that it exits quickly. Long-term capital inflows, such as foreign direct investment, are considered to be more stable and desirable because real business investment is illiquid in the short term and not easily reversed.[124] Therefore, as detailed on pages 34-36, Thailand used capital controls to limit the inflow of short-term capital when rapid inflows began. These

123 "Asia's Economic Crisis: How Far is Down?" The Economist 345.8043 (1997): 19.

controls were created to maintain "a suitable wedge between domestic and foreign interest rates while reducing pressures on the exchange rate."[125] The favorable interest rate differential was necessary to keep the capital flowing into Thailand. However, these controls were not able to protect the exchange rate. The exchange rate was eventually forced by market pressures to devalue and consumer confidence sank. The reversal from capital inflow to outflow was extreme given that the majority of inflows had been short-term. Thailand also tried to utilize capital controls to limit the outflow of capital and relieve pressure on the baht to devalue. The eventual devaluation and the sudden outflow of capital led Thailand to currency and banking crises. The crises were compounded by the weaknesses in the financial system as a whole. The banking system's infrastructure was fragile, regulations had not been enforced and risk management was not practiced. The controls, as noted before, were effective initially but merely prolonged the time before the weaknesses associated with the banking system and the pegged currency became apparent and problematic. Akira Ariyoshi, Karla Havermeier, Bernard Laurents, et al. agree that in these cases, "Resorting to capital controls may actually have delayed the necessary policy adjustments, making the eventual adjustment more severe. Moreover, in countries with weak prudential and supervisory frameworks, banking systems took on excessive risks despite the controls."[126] In

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[124] Ariyoshi, et al., "Country Experiences: Part I."
[125] IBID.
[126] IBID.

Thailand, these risks included excessive lending of short-term capital for long-term projects.

After the controls failed, the Thai government introduced economic and capital control reforms. Transactions with nonresidents were reinstated and the two-tier market became one-tier again. Insolvent companies were shut down. Bankruptcy laws were restructured to allow companies to reorganize and creditors were given a more equal standing.[127] Unfortunately, there are still vested interests that would prefer to delay the reform legislation. These people hold majority concerns in failing companies that were protected under the lenient regulations but which may become insolvent under the new laws. Interested parties will try to do everything in their power to block new laws for as long as they can. If reform legislation is not passed and reinforced, the recovery in Thailand will be slowed by inefficiency. Restructuring is a necessary aspect to Thailand's financial recovery as well as the continued investment of foreign capital. In 1998, it was estimated that almost half of Thailand's businesses would earn less than the interest charges they incur every month.[128] But falling interest rates will reduce the burden of debt service on domestic businesses and permit more businesses to stay in operation since they will not default on their loans as readily.

Though its pre-1997 growth and prosperity were impressive, weaknesses pervaded the entire Thai economic system. The onset of the foreign exchange and

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127 Delhaise 98.

128 WahTiong Chan and Krishna Reddy, "The Asian Economic Crisis: The First Eighteen Months," New Zealand International Review 24.5 (1999): 16-.

banking crises coupled with the drop in the real estate market had a drastic effect on growth. Real GDP growth was -0.4% in 1997 and -8.0% in 1998.[129] The government, unstable and corrupt, was unable to pass legislation that would have removed unnecessary regulation or bolstered weak sectors. Consumer confidence plummeted and the government's ability to maintain the baht's value was questioned. Sustaining the peg between the baht and the dollar proved to be a doomed task and the baht was finally allowed to float. After the devaluation, unemployment soared from 3.3% in 1996 to 7.0% in 1998[130] driving down consumer confidence even further. The weakness of the financial system became apparent after the baht was devalued and capital flows reversed. However, reforms are taking place in Thailand that allow restructuring of companies, improved capital flow legislation, and modern risk-management regulations. The inclusion of foreign institutions in the banking system, though initially a burden, will help raise efficiency through competition and technology transfer. Other supervisory bodies from other countries will now have implicit involvement in the economy. The banking industry will be bolstered by prudent credit analysis and adherence to risk management strategies. Thailand's struggle with the liberalization of its financial markets led to obvious negative impacts, however, the benefits of restructuring its financial systems will help Thailand become a more stable economy.

[129] The Department of State, Thailand: 1998 Country Report On Economic Policy and Trade Practices.
[130] Delhaise 87.

III.3.2 Example from Korea

III.3.2a Export-Led Expansion

Korea had been devastated by war during the 1950s and virtually isolated economically from the rest of the world. In 1960, General Park Chung Hee led a military coup that created an authoritarian government. The eventual result of this change in power was the creation of a government-led growth model. Nationalization of the banking system and promotion of exported products were two of the key features of this model. Korea began a period of expansion that produced a real GNP growth rate average of about 8% per year from 1962 to 1997.[131] With direct control of the sources of capital, the government allocated funding to particular industries in order to achieve national goals. However, the government chose to highlight a few industries rather than building a well-diversified economy. As long as Korea was growing at a rapid pace the economy could survive with only a small selection of products but if demand in one or two of the industries were to decline, the Korean economy would suffer. Most financing was subject to government approval so "the 'policy loan' became symbolic of government intervention."[132] As in Thailand, there was not enough capital in Korea to sustain the rapid growth rates. Therefore Korean banks and businesses sought foreign capital, which in turn was guaranteed by the government. The loans were guaranteed by President Park's administration in the 1960s and 1970s. And even

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[131] Delhaise 102.
[132] Yoo Seong Min, "Corporate Restructuring in Korea," Joint U.S. - Korea Academic Studies 9 (1999): 139.

though the government stopped explicitly guaranteeing loans in the 1990s, international lenders still continued to assume that the guarantee was implicit.[133] Preferential treatment was given to firms that were export-oriented and/or received financing from foreign sources. The government introduced a strong license and permit system that "consolidated the monopoly position of the incumbent firms and resulted in a highly concentrated market structure."[134] The outcome of the system is that the Chaebol now dominate Korea's economy. The Chaebol are large, family-controlled conglomerates that are export-oriented and have a monopoly-like market share in the Korean economy. According to Yoo, "The prevailing view at the time was that economic growth should be maximized at the expense of everything else, including competition."[135] The Korean government took an active role in spurring the economy forward by investing in specific industries while at the same time allowing others to wither.

Though sustained growth occurred for an extended period of time, a few industries dominated the export market and only two countries made up the largest portion of importers. According to Sung, the structure of Korean exports resulted from the government's industrial policy, "(The policy) made a great contribution in the early years of industrialization, but it prevented the diversification of exports and the emergence of a sound banking and corporate financial structures."[136] In

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133 Heo and Kim 495.
134 Min 139.
135 IBID.
136 Sung Yeong Kwack, "Factors Contributing to the Financial Crisis in Korea," Journal of Asian Economics 9.4 (1998): 611-625.

1997, the top ten commodities accounted for 50.8% of total exports with the top two commodities accounting for 20.6% of total exports.[137] The purchasers of the Korean exports are predominately the countries of Japan and the United States. By 1998, these two countries bought approximately 40% of Korea's exports.[138] The high concentration of total exports in a few products with a large percentage of profits tied to a few customers is a dangerous scenario. Changes in foreign exchange rates can have a major affect. In Exhibit H below, the chart shows that the nominal exchange rate of the Korean won appreciated against the U.S. dollar from 1994 to 1995 before depreciating in 1996.[139] The real exchange rate depreciated against the Japanese yen before 1994 but appreciated in 1995 and 1996.[140] The later appreciation decreased the competitiveness of Korea's exports.

Other circumstances beyond foreign exchange can effect Korean exports. Over-production of exported products can cause prices to decline, which in turn will decrease earnings. In 1996, there was a glut in the chemicals market that drove prices down by 36%. Yet, South Korean companies continued to build new plants and factories. Another export that fell victim to over-production in 1996 was dynamic random-access memory chips (DRAMs), which suffered a price drop of

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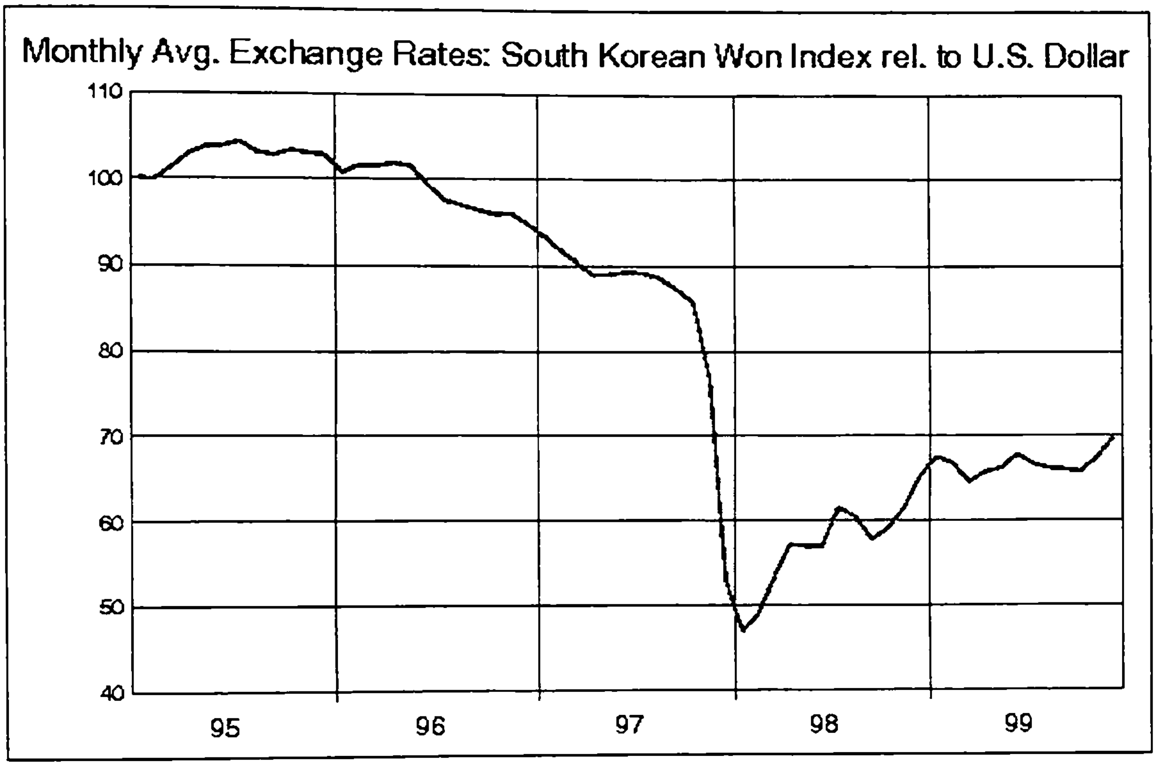
[137] The top ten commodities in 1997 listed in order were semiconductors, automobiles, petro-chemical products, ships, metal ore, computers, polyester fabrics, steel sheets, clothing, and thermionit valves parts. Source: Kwack.

[138] Kwack.

[139] Note: Time period from January 1, 1995 to December 31, 1999. Source: Pacific Exchange Rate Service, 2000, University of British Columbia Online, Vancouver BC, Canada, 3 October 2000 <http://pacific.commerce.ubc.ca/xr/>.

[140] Kwack.

Exhibit H



Note: This graph shows the devaluation of the South Korean won relative to the U.S. dollar in late 1997. Source: Pacific Exchange Rate Service

82%.[141] This was a significant loss considering semiconductor chips were Korea's number one export in 1996. As a result of this decline in price, Hyundai Electronics Industries' revenues declined 36% in 1996 and another 13% in 1997.[142] The Korean economy needed to have more diversification in products as well as greater competition in the marketplace. But disentangling the government, the corporations and the banking system was going to prove to be a monumental and treacherous task.

III.3.2b Reform and Liberalization

In the 1990s, Korea embarked on a new set of reforms that included not only the economy but also the government and society as a whole. President Kim Young Sam initiated these reforms when he took office in 1993. The goal of these reforms was to increase the economic development in South Korea by increasing economic growth, improving the overall welfare of the society including education and health reforms, and removing corruption from the government. According to Eun Mee Kim, the "economic renewal and reforms were concentrated on the liberalization of the South Korean markets through an open trade policy under internationalization and globalization."[143] The term *segyehwa* became widely used as the new policy surrounding globalization. *Segyehwa* included four phases of business globalization

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[141] Pete Engardio, Jonathan Moore, and Christine Hill, "Time for a Reality Check in Asia," Business Week On-Line, 2 December 1996, 13 October 2000 <http://www.businessweek.com>.
[142] Tom Harbert, "Toughing it Out," Electronic Business Magazine, 1998, 13 October 2000 <http://www.eb-mag.com/eb-mag/issues/1998/9805/default.asp>.
[143] Eun Mee Kim, "Globalization of the South Korean Chaebol," Korea's Globalization, ed. Samuel S. Kim (Cambridge: Cambridge UP, 2000) 106-107.

where companies would move from one phase to another in a particular order. First, a domestic company would work within a domestic market orientation where it would then evolve, in the second phase, into a domestic company with an international market orientation. Next, it would become a "foreign company" with local operations in other countries and then finally, a global company operating with knowledge and efficiency in any region.[144] These phases require that the South Korean government take specific steps to liberalize the economy and promote competition. President Kim and his administration took measures to reduce government intervention, promote economic deregulation and revise laws and regulations to ensure fair competition.[145]

The private sector was now supposed to take the reins of economic growth and push South Korea further onto the global stage. With less government intervention it seemed that specific industries would no longer receive preferential treatment and that small and medium-sized businesses could grow, as they needed to. But the "private sector" basically belonged to the Chaebol. These conglomerates had diversified into a large array of industries and still had the funding and overall support of the banks. The government's new policies removed restrictions but did not offer assistance to new market entrants. Therefore, only the wealthiest Chaebol would be able to participate on the global stage.[146] Reforms left the economy

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[144] IBID 108.
[145] IBID.
[146] IBID 109.

fundamentally unchanged since the Chaebol were still the dominant players in the market; only now they had fewer restrictions on their activities.

III.3.2c The Chaebol

The Chaebol have enormous power in Korea. According to Delhaise, the 30 largest Chaebol control 85% of industrial Korea.[147] The combined sales of the top five Chaebol accounted for 37% of the country's gross output and 44% of total Korean exports in 1997.[148] The modern Chaebol have several specific characteristics including family ownership, control and management; numerous subsidiaries under a single control; a high degree of diversification; cross shareholding among the subsidiaries within a group through equity investments; and mutual loan guarantees among subsidiaries.[149] Korea's capital markets were inadequately developed so the search for financing led companies to choose debt over equity. Debt had several benefits for the Chaebol: 1) It was guaranteed by other Chaebol, 2) it was usually subsidized at low rates by the government, 3) the family was able to maintain control of the business, and 4) the organization had the assurance that the government would not allow it to fail. Unfortunately, these benefits give the wrong incentives to a company and present an environment for a moral hazard problem to occur. Instead of focusing on the maximization of profits for the longevity of the business, managers focus on ways to increase revenues and market share at the risk

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[147] Delahise 102.
[148] "The Chaebol that Ate Korea," The Economist 349.8094 (1998): 67-68.
[149] Min 140.

of weakening the overall business. According to Delhaise, "The Chaebol suffer from two main weaknesses: over-investment and cross-subsidy."[150] Two of the largest Chaebol in July of 1997, Hyundai and Samsung, had 57 and 80 subsidiaries, respectively including five financial subsidiaries each.[151] The Chaebol continued to expand without being required to assess the risks involved. Borensztein and Lee's research shows that many Chaebol recorded little or no profit even as their sales were expanding at a rate of 30% per year in 1996.[152]

Chaebol were not streamlined and inefficiently utilized capital but the fault does not rest solely on the owners. Labor unions in Korea have an enormous amount of power and employment is implicitly guaranteed for an individual's lifetime.[153] Wages continued to increase even as productivity growth and demand leveled off or decreased. Money was repeatedly pumped into failing subsidiaries of one Chaebol and guaranteed by another Chaebol or in the case of foreign debt, guaranteed by the government. Since the Chaebol could exert indirect control on banks through ownership of quasi-financial institutions or through political alliances, these conglomerates focused on revenues rather than earnings since additional funding would always be injected if necessary. Walker points out that, "When a Chaebol is in trouble, it is likely to borrow money to acquire an enterprise

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[150] Delhaise 103.
[151] Min 188.
[152] Heo and Kim 496.
[153] Min 133.

in order to make its overall balance sheet look healthier by minimizing overall losses."[154]

Banks had no incentive to enforce regulations or follow internationally accepted business practices because the government's preferential treatment was based on discretionary methods. According to Kim and Koo, "Bank officials would not want to carry out their duty of credit examination, because the government can easily revoke their decisions."[155] Money was channeled to inefficient organizations that had little incentive to invest the funds wisely. The fact that the firm is unlikely to repay the debt combined with the pervasive view that the government would bail out the company gave the firms incentive to invest in risky projects. Kim and Koo point out that Hanbo Steel invested "more than $5 billion in steel mills employing a new technology called Corex, whose effectiveness has not been proven even in advanced countries."[156] Hanbo Steel Company, with $6 billion in outstanding debt, went bankrupt in January 1997, an unprecedented event that had only occurred to one other large Chaebol in 1985. By July 1998, two other Chaebol, Sammi Steel Company and Kia Motor Company also filed for bankruptcy protection.

Banks did not perform risk analysis on investment projects for which funding had been requested and disregarded the Chaebol practice of funneling loan money into financial contributions for politicians. Claessens, Ghosh and Scott state that,

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[154] Scott Walker, "A Tale of Two Tigers and a Giant: Comparing the Responses of Japan, Korea, and Taiwan to the Asian Financial Crisis," Asian Perspective 24.2 (2000): 39.
[155] Youn-Suk Kim and Hyeng Keun Koo, "Asia's Contagious Financial Crisis and Its Impact on Korea," Journal of Asian Economics 10.1 (1999): 111-121.
[156] Kim and Koo.

"Poor credit culture and the lack of adequate risk analysis and management were two of the main weaknesses of Korea's financial system."[157] This lack of accountability permitted the Chaebol "to over-invest and diversify excessively."[158] The excessive government control and corruption of the banking system forced banks to accumulate an enormous amount of non-performing loans (NPLs) that would be a factor in Korea's decline. The Chaebol and the banks that supported them had become such an enormous part of the economy that they were deemed "too big to fail." In 1995 and 1996, the top 30 of the Chaebol made up 16.2% and 14.6% of GNP, respectively.[159]

III.3.2d The Banking Industry

At the same time the government promoted the export-led expansion, it also nationalized the banking system. This meant that the government could exert direct control over lending and borrowing activities. And even though some regulation was lifted in the 1980s and 1990s, the status quo did not change. Politicians could still influence banks because they were responsible for appointing the top management of all the banks. Financial institutions were political vehicles for industrial policy. According to Sung, "The Korean government used the financial institutions to mobilize financial resources and allocated funds to specific industries. Bank lending was treated by the government as one of its principal instruments of

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[157] Stijn Claessens, Swati Ghosh and David Scott, "Korea's Financial Sector Reforms," Joint U.S.-Korea Academic Review 9 (1999): 85.
[158] Kim and Koo.

industrial policy."[160] Banks had little incentive to perform proper credit analysis or risk management since the decision making process in many instances was taken away from them. This intervention forced the banks to maintain a large portion of non-performing loans (NPLs). By 1997, 32 billion won or approximately 10% of Korea's outstanding credit were NPLs.[161] With the onset of the Asian crisis and a more truthful assessment of the debt burden, the estimate jumped sharply. On May 20, 1998, the Ministry of Finance announced that non-performing loans would reach 100 trillion won.[162] The significant increase can be explained in part by the lack of reporting and lack of transparency in the Korean banking system. Prudential rules and their applications had fallen behind international best practices, and differences existed between the treatment of various related financial instruments and financial institutions.[163] In 1997, when the crisis began to affect Korea severely, there was no independent supervisory authority over the banking system; banks did not practice risk management; and government influence in the banking system remained strong. In addition, there was no system to impose sanctions on banks that did not meet minimum capital requirements or to handle bank failures.[164]

Until the 1990s, Korea's financial market was heavily regulated and other countries were controlled players in Korea's economy. Regulations on foreign

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159 Min 186.
160 Kwack.
161 Heo and Kim 505.
162 Delhaise 120.
163 Claessens, Ghosh and Scott 85.
164 Jose De Luna-Martinez, Management and Resolution of Banking Crises: Lessons from the Republic of Korea and Mexico, World Bank Discussion Paper No. 413 (Washington, D.C.: The World Bank, 2000) 7.

exchange transfers barred Korean nationals from borrowing freely on the international market and limited the ability of foreign residents to buy, own, and sell domestic assets.[165] Also, the preferential treatment of large industries allowed the Chaebol to borrow at interest rates lower than the market rate. This encouraged the banking system to seek foreign investment and to create a "curb market" that could satisfy the credit demands of households and smaller firms that had been excluded from the formal credit market.[166] This market was unofficial and unregulated so it did not have to follow the lending practices of the conventional commercial banks. In general, the curb market charged much higher interest rates that covered the higher risk involved. The curb market was absorbed into a collection of "merchant banks", which composed the second-tier of the financial system. Merchant banks had a more formal structure but were still less regulated than the commercial banks in the first-tier. They took shape when reforms promoting deregulation began to take effect in the mid-1990s. The Chaebol were not permitted to own commercial banks but could own and manage mercantile banks and quasi-financial institutions.[167] The number of merchant banks expanded rapidly under the new reforms. The government, with the goal of deregulating the economy, allowed the merchant banks to operate with fewer regulations and less supervision. Commercial banks and Chaebol set up subsidiary merchant banks to fund their already over-leveraged operations. According to Heo and Kim, "Twenty-seven of the 30 largest

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165 Heo and Kim 500.
166 IBID.
167 IBID.

chaebol had debt-equity ratios of more than 300% at the end of 1996 and for 14 of these the figure exceeded 500%."[168] However, legitimizing the merchant banks did not minimize the inherent riskiness of the institutions. Strengthening the regulations and having enforced supervision, in this case, would have reduced excessive risk taking and sound fundamentals.

As in Thailand, high interest rates in Korea attracted the commercial banks to the international market. Unfortunately, the Korean banks "turned to international lending and investment with an enthusiasm that was not matched by a relevant level of skills and credit control."[169] Many of the banks sought debt issued in Eastern European and CIS (Commonwealth of Independent States) countries. Merchant banks borrowed money from both Korean and foreign commercial banks and invested in risky assets abroad. Korea's merchant banks, that had even less experience on the international market, "borrowed from foreign banks and bought large amounts of Russian and Ukraine treasury bonds, Brady bonds, and Thai and Indonesian bonds."[170] In a crash that affected some of the largest banks on Wall Street, the Russian and Ukraine markets, underdeveloped and extremely risky, fell prey to the "Asian Contagion" and underlying weaknesses in their own countries. The loss of value in Eastern European investments added to the turmoil already being felt by the South Korean banks. However, the misfortune in the international arena does not end there. Banks had invested elsewhere and had also borrowed a

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[168] IBID 496.
[169] Delhaise 116.
[170] Kim and Koo 112.

large amount of short-term capital from abroad that would become increasingly more expensive to service if the won devalued.

Foreign debt stayed at 14% of GDP until 1994 with approximately 25% of this debt categorized as short-term. However, by 1995, with the rise of merchant banks, foreign debt had become 23.8% of GDP and 28.4% of GDP in 1996. By March 1997, Korea's debt burden had increased to $156.9 million and 59% of foreign debt was short-term.[171] The debt-to-equity ratios of the Chaebol were enormous, averaging about 400% in 1996 compared to the U.S. debt-equity ratio average of 70%.[172] To add to the problems, Korea had also lent money to other Asian countries including Thailand. According to Heo and Kim, Thai financial institutions owed Korea "a total of US$173.02 million dollars of which US$92.34 million was not guaranteed by the Thai government."[173] As the Thai baht dropped in value, it became more and more difficult for the country to repay foreign creditors including Korea. The next step in Korea's fall was the bankruptcy of Japan's Takushoku Bank in November 1997, which spurred Japanese banks to call in their loans from Korea. The already weak Korean banks, specifically the merchant banks, were hit hard by this event but the problems were compounded when the Chaebol began to declare bankruptcy. The Korean economy began to unravel as merchant banks were forced to call in their loans, causing more bankruptcies in the industry. A large portion of these loans were categorized as non-performing, therefore, the likelihood of recovering much

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[171] IBID 113.
[172] IBID.
[173] Heo and Kim 498.

value from these assets was virtually zero. At the same time, a large amount of won was being sold for dollars or yen to pay off foreign debt. The flood of won on the foreign exchange market forced the won to depreciate rapidly. As the won's value decreased it became more difficult for Korean banks and businesses to service their foreign debt.

III.3.2e The Devaluation of the Won

In June 1996, the Korean won began a decline in the foreign exchange market that continued until the middle of 1997 (Please refer Exhibit H above). The government instituted a managed-float exchange rate regime, and allowed it to move within a narrow band. Like a strict fixed exchange rate system, the government will intervene in the foreign exchange market to buy and sell currency to keep the price of the currency stable. Unfortunately, this system could not stop the fall of the won. The exchange rate dropped from 900 won to the dollar to 1,500 won to the dollar by November 1997.[174] In defense of the won, the Korean government utilized an estimated US$1-2 billion daily until the reserves hit a low of US$5 billion by the end of November 1997.[175] In addition, "about US$23 billion of the official reserves were on deposit with the foreign subsidiaries of Korean banks and much of this was being lent to Korean companies."[176] The funding necessary to

[174] IBID 492.
[175] IBID.
[176] IBID 499.

defend the won against speculative attack was simply inaccessible and the Bank of Korea gave up the defense on November 18, 1997.

The devaluation of the won had a direct impact on the Korean stock market. The health of a stock market depends largely on investors' confidence that a company, industry or economy is going to perform well in the future. The Korean stock market was underdeveloped and lack of confidence soon spread as the weaknesses in the Korean economy became apparent. The government utilized the banks to not only funnel money to specific industries but to also prop up the Korean stock market. The government was able to accomplish this because it had control over the management of the banks and directed their investment in equities. According to Delhaise, "Until 1995, the government was selecting the top two executives of all the major banks, even in the private sector, rotating them among the banks. At present, the major private sector banks still need government approval for the selection of top managers."[177] The banks sought more sources of income and Korea's growth had led to a booming economy. Companies were performing well with the rapid growth, which increased returns in the stock market until 1994. However, the market began to weaken, as shown in Exhibit I[178] below, causing enormous losses for the banks. But the banks were only required to cover 30% of their losses even though, in 1995, banks lost close to 20% of their net worth when prices of equity investments declined. Through allowances by the government and lack of transparency the banks were able to hide their losses. If the

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177 Delhaise 122.

losses had been properly recognized along with the bad loans provisions, they would have rendered the major Korean banks bankrupt in 1995.[179] But the downward trend did not end in 1995. Lack of confidence in the Korean economic recovery began to drive the market downward. On November 8, 1997, foreign investors sold US$71 million of shares in the half-day trading, causing speculation that South Korea's financial turmoil would surpass that of Thailand and Indonesia.[180] As the table shows, the stock market continued to decline causing the banks' losses to become even greater.

Exhibit I

Stock Exchange Index

	Dec. 92	Dec. 93	Dec. 94	Dec. 95	Dec. 96	Dec. 97	Dec. 98
Index (KOSPI)	678.40	866.20	1027.40	882.94	651.22	376.31	288.21
Base Dec. 92 = 100	100	127.68	151.44	130.15	95.99	55.47	42.48

The Korean government had, over a thirty-year period, led the economy out of war-torn ruin into the prosperous technology age. However, its efforts, though not wholly misguided, did not produce a healthy industrial and financial structure to weather the storms brought on by the Asian Crisis. Resources were inefficiently allocated to a few industries in order to jumpstart growth. However, lack of diversification in the economy left Korea vulnerable to shifts in consumer demand, excess supplies of goods and volatile movements in the foreign exchange rate.

[178] IBID 113.

Improper incentives and corruption of the government led to a moral hazard problem in economy as a whole. Banks were merely institutions through which the government funneled money to support national goals. Credit analysis and risk management were not even practiced. The Asian Crisis struck too quickly for the weaknesses to be recognized and repaired. High growth in exports had spurred the economy but there was no comparable growth and development in financial markets, the banking system or economic policy.

III.4 Liberalization and Economic Development

The potential benefits from liberalization include an increase in trade, greater access to international financial markets and improvement in the welfare of an entire nation. These benefits may be achieved by implementation of liberalizing policies that free capital flows and build capital markets. The characteristics of a financial system where capital moves relatively freely include: 1) Achieving positive and variable real interest rates, 2) using market forces to match lending capacity with borrowing requirements rather than favoring "special" borrowers, 3) encouraging the development of financial markets, 4) maintaining flexible exchange rates, and 5) decentralization of resources.[181] Positive and variable real interest rates are important for saving and investment in an economy. When controls are placed on interest rates to keep them artificially low, the actual interest rates are distorted from

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[179] IBID 114.
[180] Kim 119.
[181] Germidis, Kessler, and Meghir 25-26.

the equilibrium interest rates that would prevail in a competitive market based on supply and demand. High inflation may cause real interest rates to be negative, which in turn discourages savings and investment spending.[182]

"Special borrowing" takes place when a government requires a lending institution to make loans to firms or industries even if the loans become non-performing.[183] This type of lending occurred in Korea when the government pushed the banks to lend to the Chaebol. The Asian Crisis revealed that some banks, without any other influencing factors from the crisis, were so exposed that they would have gone bankrupt just from the defaulted loans made to the Chaebol.[184] Liberalizing policy requires that banks and other financial institutions practice sound risk management and accounting procedures. But along with this requirement, liberalization allows these institutions to have a greater opportunity to choose risk management strategies by opening access to international financial markets. Liberalized markets also have a tendency to have a floating exchange rate,[185] which has an effect on other factors in the market. An appreciating currency will help to keep inflation low. In the converse, a depreciating currency may stimulate growth in the economy and lower unemployment.

As shown in the Thailand and Korea examples, the risks and costs of implementing liberalizing policies can be severe but these risks may be minimized

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182 Simplistically, as interest rates decline, individuals will save less and consume more. The opportunity cost of current consumption falls.
183 Germidis, Kessler, and Meghir 25.
184 Delhaise 104.
185 A floating exchange rate is determined by the unregulated forces of supply and demand.

with careful implementation. Liberalized financial markets help allocate assets efficiently to support economic growth and economic development. Economic growth refers to a sustained increase in the per capita income (i.e.: GNP or GDP) of a country. Economic development, on the other hand, is a sustained increase in quality of life that affects a substantial part of a population. Education for the majority of the population, access to healthcare and increased political freedom are aspects that improve quality of life. Sustained economic growth is essential to have a substantial effect on development of an economy. Unfortunately, documenting these benefits empirically and establishing a cause-and-effect relationship with liberalization is quite difficult. Limited data has been gathered and even less has been written regarding a link between liberalizing policy and either economic growth or development. Rather than trying to establish a definite and universal link between liberalization and its benefits, this paper will provide a positive example from the experience in East Asia. In East Asia, liberalization aided sustained growth, which in turn allowed economic development through funding for education and health services. Asian countries felt the benefits of both economic growth and development before the crisis. Also, the continued openness may be aiding in the recovery process.

Like many of the East Asian countries in the 1960s, relatively poor countries of the 21st century desperately need economic growth and development. There are approximately 6 billion people living in the world and over three-quarters of these people live in low or lower-middle income countries.[186] Approximately 1.3 billion people live under the poverty line on less than a dollar a day.[187] There is a constant search for ways to spur growth in poorer countries and raise the income per capita. With the proper institutions and policies in place, a boost in income will allow the government to allocate funding to development programs for the benefit of the majority of the population. The increase in growth and development can help people lift their countries out of poverty. International trade is a likely starting point for sustaining growth. Again referring to Exhibit E, international trade will eventually spur the need for well-established, unrestricted capital and foreign exchange markets. Allowing trade with other countries and building strong capital markets will provide opportunities for foreign investors to distribute capital to value-adding projects while also expanding the potential for domestic residents to participate to a fuller extent in a growing economy.

The basis for international trade is that as long as a country has a comparative advantage in at least one good then the country will be better off opening up to trade. The theory of comparative advantage states that nations with different endowments of capital, labor, and natural resources will gain by specializing and exporting in those areas where their relative costs of production are low and

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[186] The World Bank, World Development Report 2000/2001: Attacking Poverty (New York: Oxford UP, 2001) 275.

[187] Note: A dollar per day is considered the international poverty line. Source: Lawrence H. Summers, "Rising to the Challenge of Global Economic Integration," Remarks to the School for Advanced International Studies. The Department of the Treasury, Washington, D.C., 20 September 2000. 25 October 2000 <http://www.ustreas.gov/press/releases/ps893.htm>.

importing in those areas where their relative costs of production are high.[188] As an example, assume that *"Home"* has a comparative advantage in Good X and *"Foreign"* has a comparative advantage in Good Y. *Home* will be better off engaging in trade with *Foreign* because *Home* can more efficiently use its resources by specializing in Good X. *Home* will not have to spend resources making Good Y, a good in which it does not have a comparative advantage. Based on economic modeling, the result will be an increase in the price of Good X and a decrease in the price of Good Y for *Home*. *Home* can now receive more of Good Y for Good X than before trade. Countries will specialize in the good, which utilizes its abundant resource intensively. Many developing countries are labor abundant. Therefore, if prices go up for a labor-intensive good then wages will also go up, as long as labor is not in excess supply. The people of developing countries are better off in at least one dimension since income per capita rises. This is a very basic explanation with one key point: an increase in income can accompany an increase in international trade. And as previously shown in Exhibit E, eventually a sustained increase in international trade will increase the need for financing outside the scope of a country's borders.

With the increase in trade, businesses will seek foreign capital for continuing growth when domestic savings have diminished. However, capital is just one factor that contributes to economic growth, though, it seems to be the most important factor for emerging markets. Researchers have found that increases in capital stock

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[188] Malcom Gillis, et al., Economics of Development, 4th ed., (New York: W.W. Norton & Co., 1996) 29.

can account for as much as 50% of the increase in output for a country and that "capital does play a large role in the growth of today's developing countries."[189] If domestic savings are low then a country will need to seek outside investment to build capital stock. Other factors that contribute to growth are labor, arable land, natural resources, and an increase in efficiency and productivity. The proper mix of an increase in these factors will depend on the specific economy in a country. Not every country has land that can be farmed or an enormous labor supply so other avenues must be explored. Also, a country will only grow if productive investment, sustained from both internal savings and external capital inflows, continues. Economic growth may be aided by capital from abroad in forms such as foreign direct investment, which will allocate capital to long-term assets like land, factories and machinery. If a country succeeds in sustaining economic growth then economic development may also be more prolonged and effective.

Many opponents of liberalization have argued that the benefits of liberalization would go only to the wealthy few. But liberalization can be considered "growth-through-integration". It benefits more than just developed countries like the United States or Japan and large corporations that bring in competition, but also developing countries and domestic industry as well. An article in the Economist supports this second argument by stating:

> The "gains" just referred to are not, or not only, the profits of western and third-world corporations but productive employment and higher incomes for the world's poor. That is what growth-through-integration has meant for all the developing countries that have achieved it so far. In terms of relieving

[189] Gillis 47.

want, "globalisation" is the difference between South Korea and North Korea, between Malaysia and Myanmar, even between Europe and Africa.[190]

In fact North Korea's GNP per capita for 1999 was less than $755, while South Korea's per capita GNP was equivalent to $14,637. Malaysia posted a per capita GNP of $7,963 in 1999 while Myanmar's, like North Korea, was below $755 per person. This disparity in wealth is partly due to liberalization, globalization and interconnectedness.

Growth in GNP and greater income per capita do not automatically mean that gains are fairly distributed among the population of a country. And unfortunately, the data regarding distribution of income within a country is scarce and of poor quality. However, the data from East Asia concerning poverty rates does show that it has been possible to distribute new wealth effectively to those who need it. The incidence of poverty has declined dramatically in the East Asian countries with high growth rates and openness to capital flows. According to the World Bank, Indonesia's poverty rate dropped by over 80% between 1975 and 1995 from 64.3% of the population to 11.4%. Malaysia and Thailand dropped their poverty rates from 17.4% and 8.1%, respectively to 0.9% in the same period[191] (Please see Exhibit J below). Shigemitsu Sugisaki, the Deputy Managing Director of the International Monetary Fund, agrees that free access to capital has aided the Asian countries with growth and the fight against poverty. He states that:

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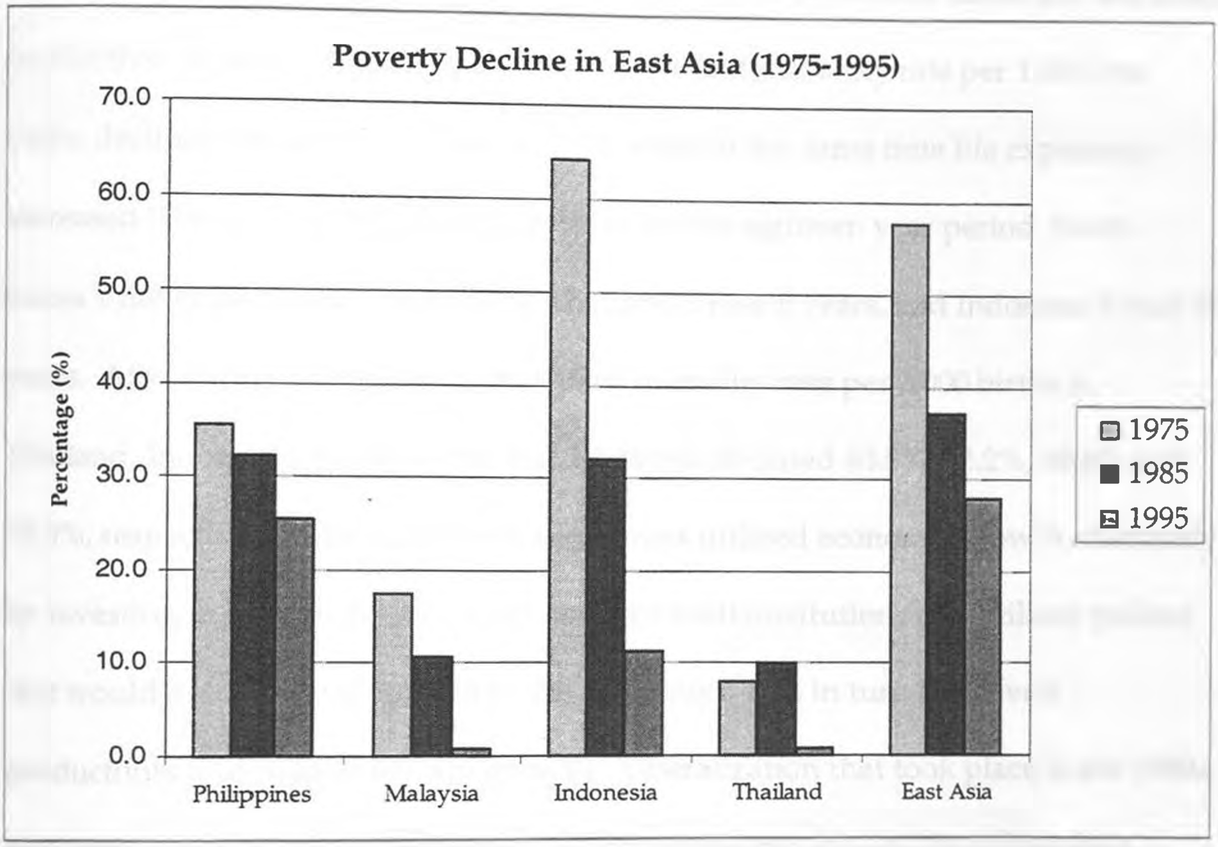
190 "The Case for Globalisation," Economist.com, 23 September 2000, 25 October 2000 <http://www.economist.com>.
191 The World Bank, "Poverty in Thailand," The World Bank website, 7 November 2000 <http://www.worldbank.org/eapsocial/countries/thai/pov1.htm>.

Indeed, in practice, the free flow of capital has been helpful in enhancing growth and raising the standards of living in those countries that have been successful in attracting capital and maximizing its use. We must not forget that if a number of countries in Asia and Latin America have been able to build vibrant economies and a modern industrial base, it is because their task was facilitated by free access to available external savings."[192]

Characteristics of development in the booming Asian economies before the crisis were a decrease in infant mortality rate, an increase in the education of the mass population through primary and secondary schools and an increase in life expectancy. As displayed in the tables below, Indonesia, Malaysia, South Korea, the Philippines and Thailand have made improvements in these areas. The literacy rates in all of these countries started out relatively high but they still improved as the countries grew (Please see Exhibit K below). The adult literacy rate in Thailand jumped from 88% to 94% of the population by 1995 while South Korea's adult literacy rate in 1995 was 98% of the population. This foundation helps to promote further education among the mass population. These countries, especially in the case of South Korea, spent a large amount of money on education at the primary and secondary levels. A highly educated population is more able to implement and modify new technologies to help the economy become more efficient and stimulate growth. In addition, an educated populace is more likely to innovate on its own. Money can be invested into research and development and effectively utilized because workers are able to invent new products without needing to buy the technology from abroad.

[192] Shigemitsu Sugisaki, "The Benefits and Risks Associated with the Wider Integration of

Exhibit J



Note: This chart illustrates the decline in poverty in four countries and in the East Asian region country as a whole. The decline is greatest in Indonesia where poverty declined by over 80% in twenty years to 11.4% of the population. Malaysia and Thailand both dropped their poverty rates down to 0.9% of the population in the same time period. Source: The World Bank, ""Poverty in Thailand"

International Financial Markets," Oman International Economic Conference, Muscat, 5 December 1998. 25 October 2000 <http://www.imf.org/external/np/speeches/1998/120598.htm>.

An improvement in the health of a population will also provide an economy with a better, more efficient workforce. Healthier workers learn faster and are more productive. In several East Asian countries, infant mortality rate per 1,000 live births declined sharply from 1980 to 1998 while at the same time life expectancy increased (Please refer to Exhibit L below). In this eighteen year period, South Korea's life-expectancy rose 6 years, Thailand's rose 8 years, and Indonesia's rose 10 years. Also, in the same period, the infant mortality rate per 1,000 births in Thailand, Indonesia, South Korea and Malaysia declined 40.8%, 52.2%, 65.4% and 73.3%, respectfully. The East Asian economies utilized economic growth effectively by investing in human capital. Each country built institutions and utilized polices that would sustain development in the economy. This in turn improved productivity and helped sustain growth. Liberalization that took place in the 1980s and 1990s provided the opportunity for improvements in welfare in East Asia. However, as noted before, each economy is at a different stage of development. The programs and institutions that worked effectively in East Asia may not be easily transferred to the rest of the world.

The World Trade Organization (WTO) and other proponents of liberalization present additional arguments for the opening of financial markets. Increased international competition in financial services, as with the increase in competition in general, will force domestic companies to reduce waste, cut costs, improve management and become more efficient. Open markets will encourage

Exhibit K

	Adult Literacy Rates		Public Expenditure on Education			
			% of GNP		*Equivalent 1997 U.S.Dollars*	
Country	1980	1995	1980	1997	1980	1997
Indonesia	67%	84%	1.7%	1.4%	$ 1,258,747,209	$ 3,020,461,263
South Korea	94%	98%	3.7%	3.7%	$ 5,138,385,495	$ 17,629,967,728
Malaysia	70%	84%	6.0%	4.9%	$ 2,195,346,258	$ 4,909,910,778
Philippines	90%	95%	1.7%	3.4%	$ 1,143,562,627	$ 2,796,050,355
Thailand	88%	94%	3.4%	4.8%	$ 1,931,062,183	$ 7,203,213,876

Source: International Monetary Fund, World Development Indicators, 2000

Exhibit L

	Life Expectancy at Birth		Infant Mortality Rate	
	years		*per 1,000 live births*	
Country	1980	1998	1980	1998
Indonesia	55	65	90	43
South Korea	67	73	26	9
Malaysia	67	72	30	8
Philippines	61	69	52	32
Thailand	64	72	49	29
Japan	76	81	8	4
United States	74	77	13	7

Source: International Monetary Fund, World Development Indicators, 2000 the emergence of new financial instruments, allowing companies to choose the optimal combination of equity, bonds or loans to finance their activities. Liberalization will also address the needs of the consumers by forcing financial institutions to cater to and provide better advice to depositors.[193] Another proponent contends that capital mobility creates valuable opportunities for portfolio diversification. Shigemitsu argues that, "This movement raises the level of welfare in both the sending country and in the receiving country by creating opportunities for portfolio diversification, risk sharing and inter-temporal trade."[194] When households and firms lend to foreign countries, they can protect themselves against the effects of disturbances that impinge on the home country alone.[195] This is similar to diversifying risky assets where an investor would choose one stock in a particular industry and other stocks in dissimilar industries. The logic is that unsystematic risk[196] can be diversified away (or offset) by adding dissimilar companies and industries to a portfolio.

Volumes of information about the Asian Crisis and what researchers propose were the causes have already been produced. High-quality empirical studies are

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193 Shada Islam, "Try It, You'll Like It." Far Eastern Economic Review 160.40 (1997): 73.
194 Sugisaki.
195 Barry Eichengreen and Michael Mussa, "Capital Account Liberalization and the IMF," Finance & Development 35.4 (1998): 17.
196 There are two kinds of risk that pertain to any investment: systematic and unsystematic. Systematic risk is the variability in all risky assets caused by macroeconomic variables (things that affect the economy as a whole such as interest rate volatility, variability in the growth of the money supply and variability in industrial production). Unsystematic risk is variability that is associated with a particular firm, industry or country. The unsystematic risk can be diversified away or offset by

starting emerge as well. However, the topic of recovery has yet to receive as much attention or study and specific reasons for the quick renewal in the Asian economies have not been pinpointed. The accelerated recovery in Asia may be at least in part contributed to liberalization. Before the crisis, the Asian financial markets had weaknesses that played a role in their downfall. Liberalization does require a sound financial structure with prudent regulation in order to be implemented with less severe consequences. But even with the crisis, the Asian countries did not commit to isolating themselves from the rest of the world. Capital controls were placed on outflows during the crisis in both Thailand and Malaysia as discussed above but were removed or reduced after the purpose was served. Each country is now restructuring and trying to fix the weaknesses in its respective economy. The region has utilized fiscal policy to stimulate the economy, adding to the acceleration toward recovery by an improvement in the volume and value of exports. With continued access to the international market, domestic demand increased with imports rising by 30% in Korea and over 25% in Thailand.[197] A boost in consumer confidence in the region has also been expressed with a rise in private investment, which is expected to increase steadily.[198]

The boost in exports, imports and private investment highlight improvement in different aspects of an economy but recovery is most readily visible when

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choosing assets that are dissimilar. In more general terms, if the price of one is going down (the investor is losing money), the price of the other asset may be going up and the loss is offset.

[197] IMF, World Economic Outlook: Asset Prices and the Business Cycle (Washington, D.C.:IMF, 2000), 7 November 2000 <http://www.imf.org/external/pubs/ft/weo/ 2000/01/pdf/chapter1.pdf> 28.

[198] IBID.

discussing the growth of total income for a country. By 1999, within a year and a half of the crisis, some of the East Asian countries were already posting growth rates close to their previous averages. The International Monetary Fund stated that Thailand's GDP growth for 1999 was 4.25%, while Malaysia grew 5.5% and Korea reported a 10.5% increase.[199] For 2000, the IMF is predicting that Korea and Malaysia will both post a 7% growth rate while Thailand, Indonesia and the Philippines will report growth between 3-5%.[200] Recovery has come both from restructuring of the banking systems and governmental policy on the part of each individual country but also from an injection of foreign capital and a market for selling exports. Although capital controls were implemented to try to prevent further damage from the rapid outflow of funds, the Asian economies stayed at least partially open to the international markets. Growth and prosperity are beginning to take hold as East Asia rebuilds forming stronger, more developed capital and foreign exchange markets.

Liberalizing policy should be implemented slowly with considerable attention paid to strengthening reforms. Freeing capital movements revealed weaknesses in the East Asian countries that had formed from prior fiscal policy and regulation. The Asian Crisis exposed flaws in the banking industry and conflicts with foreign exchange policy in Thailand, and imperfections in industrial and fiscal policy in Korea. But for all of the risks involved there were overriding benefits that affected a majority of the population. Sustained growth was facilitated by access to

[199] IBID.

foreign capital. Risk management opportunities on both the corporate and private investor levels are now more accessible. Growth has also given the East Asian countries greater resources to tackle economic development and raise the standard of living for the entire population. A healthier, highly educated workforce drove productivity and furthered growth in the region. This investment into human capital will continue to provide rewards as these crisis-stricken countries rebuild and grow in the future.

[200] IBID.

Chapter IV

CONCLUSION

The Asian Financial Crisis affected millions of people in East Asia and around the world. The nations of East Asia felt the negative effects of currency devaluation, high inflation, and high unemployment, which were all the more devastating having followed an extended period of high growth and prosperity. Many of the Asian countries affected had utilized regulation to try to stabilize their financial markets and promote growth in the economy. However, the protection provided by regulation also restricted some East Asian industries from participating internationally and having the opportunity to become more competitive. Increased competition would have pushed domestic firms to be more efficient and productive while also increasing education and awareness of credit analysis and risk management.

Determining the best way to coordinate the liberalization process among institutions and regulators is critical if liberalization is to be successful. When liberalizing policy was implemented the East Asian countries, the economies had not been properly prepared by strengthening reforms to successfully move away from protective regulations. Reforms need to be made to ensure that the economy is stable enough to effectively make changes. Both Thailand and Korea found that utilizing liberalizing policy without carefully studying the risks and costs involved and implementing necessary reforms can lead to financial turmoil. Also, it should be recognized that a process that is successful in one economy might not work well in another economy.

Besides the risks and costs involved, East Asia has also enjoyed many of the benefits that can accompany liberalization. Liberalization fostered continued growth through the expansion of international trade and the expansion of credit channels. The higher growth contributed to better funding for education and health care services. Healthier, highly educated workers learn faster, implement new technologies better and improve efficiencies more rapidly. These factors contributed to an increase in productivity and efficiency for each economy as a whole. Now that the affects of the crisis are subsiding, Asian countries can create more opportunities for growth without the need to circumvent controls by the implementing strengthening reforms in the banking industry and developing financial markets. In addition, each of the countries still retains the foundations of economic development and a highly educated workforce with which to rebuild.

The Asian Financial Crisis is not a topic that can be isolated to a particular region. The issues surrounding it will have an impact on developing countries and developed countries alike. Advances in technology and the interconnectedness of financial markets and international trade have linked every country in the world to a global marketplace. The increase in interconnectedness has raised the risks involved. Markets have become more volatile and transmit shocks from one economy to another more readily. Mitigating crises has become even more important. Hard, empirical research is just now emerging about the impact of the

Asian Financial Crisis. And though there has been a lag in the research, it is clear that studies in this area will be important for years to come. International organizations like the United Nations, the WTO, the IMF and the World Bank will use the findings from the research to shape their policies. This will impact both developing and developed countries that are members of and seek aid from these organizations. Policies affecting liberalization will also set the precedent for use and implementation in the future.

The crisis took a toll on East Asia in terms of low or negative GDP growth, high unemployment and low consumer confidence in the region, but the countries are rebounding. GDP growth rates were close to before-crisis levels by 1999, less than two years after the crisis began. The continued international trade and, though limited, access to outside investment has helped the East Asian economies to rebuild and continue development. Many of the controls put in place to try to stem the tide of the crisis have now been taken away with strengthening reforms in place. And though the costs of liberalization were high, the Asian Crisis has benefited affected countries by bringing awareness to imbedded problems and forcing reforms to strengthen ailing sectors. Liberalization has not brought ruin to the East Asian economies but rather a possibility to extend sustained growth by expanding opportunities through more developed banking systems and more efficient financial markets.

BIBLIOGRAPHY

Ariyoshi, Akira, et al. "Country Experiences with the Use and Liberalization of Capital Controls: Part I." January 2000. The International Monetary Fund. 12 January 2000 <http://www.imf.org/external/pubs/ft/capcon/ index.htm>.

_____. "Country Experiences with the Use and Liberalization of Capital Controls: Part II." January 2000. The International Monetary Fund. 12 January 2000 <http://www.imf.org/external/pubs/ft/capcon/ index.htm>.

"Asia's Economic Crisis: How Far is Down?" The Economist. 345.8043 (1997): 19-21.

Beim, David O., and Charles W. Calomiris. Emerging Financial Markets. New York: McGraw-Hill Irwin, 2001.

Bird, Graham. "Exchange Rate Policy in Developing Countries: What is Left of the Nominal Anchor Approach?" Third World Quarterly 19.12 (1998): 255-276.

Bullard, Nicola, Walden Bello, and Kamal Malholtra. "Taming the Tigers: The IMF and the Asian Crisis" Tigers in Trouble: Financial Governance, Liberalisation and Crises in East Asia. ed. Jomo K.S. New York: Zed Books, Ltd, 1998.

Calomiris, Charles W. "The IMF's Moral Hazard." 5 August 1998. 6 April 2000 <http://www.aei.org/ra/racalomiris.htm>.

"The Case for Globalisation." Economist.com. 23 September (2000). 25 October 2000 <http:// www.economist.com>.

"The Chaebol that Ate Korea," The Economist 349.8094 (1998): 67-68.

Chan, WahTiong, and Krishna Reddy. "The Asian Economic Crisis: The First Eighteen Months." New Zealand International Review 24.5 (1999): 16-.

Claessens, Stijn, Swati Ghosh, and David Scott. "Korea's Financial Sector Reforms." Joint U.S.-Korea Academic Review 9 (1999): 83-110.

Crane, Dwight B., et al., The Global Financial System: A Functional Perspective Boston: HBSP, 1995.

Crook, Clive, ed. "Survey of the World Economy: Fear of Finance." The Economist 324 (1992): 6-45.

De Luna-Martinez, Jose. Management and Resolution of Banking Crises: Lessons from the Republic of Korea and Mexico. World Bank Discussion Paper No. 413. Washington, D.C.: The World Bank, 2000.

Delhaise, Philippe F. Asia in Crisis: The Implosion of the Banking and Finance Systems. Singapore: John Wiley & Sons, 1998.

Delong, J. Bradford. "East Asia: The True Moral Hazard." 26 January 1998. 6 April 2000 <http://econ161.berkeley.edu/OpEd/East_Asia_Moral_Hazard.html>.

The Department of State. Thailand: 1998 Country Report On Economic Policy and Trade Practices. Report submitted to the Senate Committees on Foreign Relations and on Finance and to the House Committees on Foreign Affairs and on Ways and Means. 31 January 1999. 22 March 2000 <http://www.tradeport.org/ts/countries/thailand/ecopol.html>.

Eichengreen, Barry, and Michael Mussa. "Capital Account Liberalization and the IMF." Finance & Development 35.4 (1998): 16-19.

Engardio, Pete, Jonathan Moore, and Christine Hill. "Time for a Reality Check in Asia." Business Week On-Line 2 December (1996). 13 October 2000 <http://www.businessweek.com>.

"Fix or Float?" The Economist 350.8104 (1999): 15-17.

Gamble, William. "Restructuring in Asia - A Brief Survey of Asian Bankruptcy Law." Emerging Market Strategies 13 April (1998). 15 January 2000 <http://www.stern.nyu.edu/~nroubini/asia/AsiaHomepage.html>.

Germidis, Dimitri, Denis Kessler, and Rachel Meghir. Financial Systems and Development: What Role for the Formal and Informal Financial Sectors? Paris: OECD, 1991.

Gillis, Malcom, et al., Economics of Development. 4th ed. New York: W.W. Norton & Co., 1996.

Hanke, Steve. "Reflections on Exchange Rate Regimes." CATO Journal 18.3 (1999): 335-344.

Harbert, Tom. "Toughing it Out." Electronic Business Magazine (1998). 13 October 2000 <http://www.ebmag.com/ebmag/issues/1998/9805/default.asp>.

Heo, Uk, and Sunwoong Kim. "Financial Crisis in South Korea: Failure of the Government-Led Development Paradigm." Asian Survey 90.3 (2000): 492-507.

International Monetary Fund (IMF). International Financial Statistics. Washington, D.C.: IMF, 2000.

_____. World Economic Outlook: Asset Prices and the Business Cycle Washington, D.C.:IMF, 2000. 7 November 2000 <http://www.imf.org/external/pubs/ft/weo/2000/01/pdf/chapter1.pdf>.

Islam, Shada. "Try It, You'll Like It." Far Eastern Economic Review 160.40 (1997): 73.

Kim, Eun Mee. "Globalization of the South Korean Chaebol." Korea's Globalization. ed. Samuel S. Kim. Cambridge: Cambridge UP, 2000.

Kim, Youn-Suk, and Hyeng Keun Koo. "Asia's Contagious Financial Crisis and Its Impact on Korea." Journal of Asian Economics 10.1 (1999): 111-121.

Krugman, Paul. "What Happened to Asia?" January 1998. 6 April 2000 <http://web.mit.edu/ krugman/www/disinter.html>.

K.S., Jomo. Tigers in Trouble: Financial Governance, Liberalisation and Crises in East Asia. ed. Jomo K.S. London: Zed Books Ltd, 1998.

Kwack, Sung Yeong. "Factors Contributing to the Financial Crisis in Korea." Journal of Asian Economics 9.4 (1998): 611-625.

Lim, Linda Y. C. "Whose 'Model' Failed? Implications of the Asian Economic Crisis." The Washington Quarterly 21.3 (1998): 25-36.

Lu, Ding, and Qiao Yu. "Hong Kong's Exchange Rate Regime: Lessons from Singapore." China Economic Review 10.2 (1999): 122-140.

Lex Mundi. World Report 8.3 (1996). 15 January 2000 <http://www.eworldreports.com>.

Malholtra, Kamal. "Globalisation, Trade and Financial Liberalisation: The Case of Thailand." Structural Adjustment Participatory Review International Network Website. 5 March 2000 <http://www.igc.apc.org/dgap/saprin/thai.html>.

Marotta, George. "European Union." Vital Speeches of the Day 65.13 (1999): 398-399.

Min, Yoo Seong. "Corporate Restructuring in Korea." Joint U.S. - Korea Academic Studies 9 (1999): 131-200.

Pacific Exchange Rate Service. 2000. University of British Columbia Online, Vancouver BC, Canada. 3 October 2000 <http://pacific.commerce. ubc.ca/ xr/>.

Pindyck, Robert S., and Danel L. Rubinfeld, Microeconomics. 4th ed. Upper Saddle River, NJ: Prentice-Hall, Inc., 1998.

Ravenhill, John. "APEC and the WTO: Which Way Forward for Trade Liberalization?" Contemporary Southeast Asia 21.2 (1999): 220-.

Sachs, Jeffrey. "The Exchange Rate Puzzle." WorldLink Mar/Apr (1999): 8-9.

Schuler, Kurt A. Currency Boards. Diss., George Mason University, 1992. Fairfax, Virginia: 1992. 1 November 2000, <http://users.erols.com/kurrency/ webdiss1.htm#CHAPTER%208.%20%20CURRENCY%20BOARDS%20TODA Y>.

Schinasi, Garry J., Burkhard Drees, and William Lee. "Managing Global Finance and Risk." Finance & Development 36.4 (1999): 38-41.

Shapiro, Alan C. Foundations of International Financial Management. 3rd ed. New York: John Wiley & Sons, 1999.

Sugisaki, Shigemitsu. "The Benefits and Risks Associated with the Wider Integration of International Financial Markets." Oman International Economic Conference, 5 December 1998. Muscat. 25 October 2000 <http://www.imf.org/external/np/speeches/1998/120598.htm>

Summers, Lawrence H. "Rising to the Challenge of Global Economic Integration," Remarks to the School for Advanced International Studies, 20 September 2000. Washington, D.C.: The Department of the Treasury, 2000. 25 October 2000 <http://www.ustreas.gov/press/releases/ps892.htm>.

Velde, Francois R. "Dollarization in Argentina." Economic Perspectives 1st quarter (2000): 24-37.

Walker, Scott. "A Tale of Two Tigers and a Giant: Comparing the Responses of Japan, Korea, and Taiwan to the Asian Financial Crisis." Asian Perspective 24.2 (2000): 27-58.

Wasserman, Simon. "The Euro: A Shot Heard Around the Pension Fund World." Compensation & Benefits Review 30.3 (1998): 40-45.

The World Bank. "Poverty in Thailand." The World Bank Website. 7 November 2000 <http://www.worldbank.org/eapsocial/countries/thai/pov1.htm>.

_____. "World Bank Economic Policy Forum: Economic Growth in East Asia," The World Bank Website. 2 November 2000 <http://www.worldbank.org/wbi/edimp/eastasia/growth.html>.

_____. World Development Report 2000/2001: Attacking Poverty. New York: Oxford UP, 2001.