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The Impact of Liberalization and Regionalism upon Capital Markets in Emerging Asian Economies

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Abstract

This paper examines the trend towards regionalism upon stock market returns for a sample of Asian countries. We find that stock markets are becoming regionally integrated at a faster rate than globally. This finding reflects the growing co-operation between Asian countries. This study focuses upon Indonesia, Malaysia, the Philippines, South Korea, Taiwan and Thailand. These markets suffered severe contagion effects in relation to the Asian financial crisis that occurred during 1997. In addition, this study reports on the significant economic and political events that occurred in Asian economies from 1980. This study concludes that increases in liberalization coupled with stronger 'regionalism' in South East Asia contributed to the Asian financial crisis in 1997, in addition the structural weaknesses in their financial systems. Policy setters may consider reducing the amount of intra-regional dependence in order to reduce the impact of financial crises and improve stability of the financial system and re-examine the *correct* sequencing of both economic and financial liberalization.

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1. Introduction

The purpose of this paper is to investigate financial liberalization and the trend towards 'regionalism' in Asia upon stock market returns. However, it is not an objective of this study to examine whether the growth in regionalism and liberalization is good or bad from a socio-economic perspective but rather to suggest some policy-relevant questions for the governments in light of the recent financial crisis in Asia. It is argued that 'regionalism' combined with unsustainable levels of liberalization may have contributed to the Asian financial crisis. We conclude that the move towards greater regionalism in Asia may mean greater contagion effects in the future. We endorse the International Monetary Fund's call for increased transparency; good governance and intensification of the fight against corruption; strengthening of financial and banking systems; effective regional surveillance; continued liberalization of international capital flows and the strengthening of multilateral institutions.

The ascendancy of stock markets in the rapidly emerging economies of Asia is due to a continual process of liberalization. Many Asian nations realised the virtues of capital markets and their contribution to economic development. Developed nations capitalised upon the opportunities for profit from investments and portfolio diversification in emerging stock markets, and found that they could hedge against potentially damaging domestic equity market shocks. These opportunities arose because of low correlations of emerging stock markets with other markets, caused by market segmentation.

The market movements of developing and developed markets have become more closely related in the past decade. The forces driving globalization are faster global communication and transportation infrastructures, and the homogenization and convergence of consumer demands. This process has been reinforced by a reduction in barriers to investment in emerging equity markets. However, within the paradigm of globalization is a more potent driver of economic development – regionalism.

Within Asia there has been a shift towards regionalism from the doctrine of multilateralism [Tusie, 1998]. There are two major forms of regionalism in existence in Asia. The first is a relatively restrictive grouping of countries known as the ASEAN (Association of South East Asian Nations) bloc and the second is less the less restrictive APEC (Asia Pacific Economic Co-operation) affiliation. The rapid industrial expansion of East Asia has been a significant contributor to the strong association and inter-dependence between their economies and the west under the concept of 'open regionalism.' [Elek, 1992]. Regional trading agreements began to proliferate during the 1980s. Most countries now belong to a regional trade group. The United States has traditionally taken a multilateral stance and was founder of the principles driving the General Agreement on Tariffs and Trade (GATT), is a member of the North American Free Trade Agreement (NAFTA) and also the Asia-Pacific Economic Cooperation (APEC) group. The trend toward regionalism is likely to dominate the trade agenda during the 21st century. The growth in regionalism may be viewed as a progression from highly protected domestic markets towards complete globalization. The process of globalization seems to undermine the nation state as well as liberal democracy. In consequence, the need to establish democratic structures on an international level is widely accepted. However, such institutions are viewed upon with a high degree of scepticism and sometimes as instruments of economic

imperialism. It may also be argued that countries that promote multilateralism are those that will benefit most from such a system. Thus regionalism could be viewed as the response to economic imperialism. Game theoretical analysis suggests that it is less costly and more beneficial to negotiate trade on a regional as opposed to a multilateral basis. A potential criticism of regionalism is that free trade areas are especially harmful because associated rules of origin offer a vehicle for increasing protection toward non-members. In addition, there could be a danger that regional trade agreements will distort trading patterns, complicate trade regulation, and hinder rather than promote progress toward multilateral liberalization. In this paper we argue that regionalism was in part responsible for the Asian financial crisis.

Within Asia, other than the Association of South-East Asian Nations, established in 1967 involving Thailand, Malaysia, the Philippines, and Indonesia, no other trading alliances have been created that may explicitly be defined as a trading bloc [Hodder, 1994]. Although foreign direct investment had undergone substantial reforms especially through the relaxation of foreign exchange controls, ASEAN's intra-regional trade only constituted 12% of its total exports and imports in 1994 [Hodder, 1994]. However, this had risen significantly in the past five years. Intra-regional trade amongst ASEAN countries is stronger than for any other trading bloc [Garnaut, 1998].

Portfolio flows of capital also show evidence of regional patterns emerging through intense competition [Langhammer, 1995]. We believe that the substantial growth in regional trade harnessed an over dependence upon the fortunes of the region. This growth in regionalism within ASEAN has been due to similar cultures, traditions and geographic proximity to one another. Geographically it is a series of islands and peninsulas that is controlled by national governments each with widely different political orientation [Hodder, 1994].

“Economic development is inherently endowed with a spatial dimension, which derives from the important cumulative effects of synergy and feedback which are activated by spatial proximity...”

[Pompili, 1994]

Regional integration has both economic and political connotations. It is not necessarily just an economic union. Rather, regionalism involves the elimination of various forms of disagreement and discrimination between participating countries [Balassa, 1982]. Agreements range from the removal of internal tariffs and quotas to the total unification of political and super-national institutions. Nationalistic tendencies may prevent the loosening of trade barriers because of a country's desire to maintain their own political sovereignty. For developing markets, there is a perception that developed countries close off their markets to the exports from developing countries while still wanting to establish their own markets in developing countries. Sociological analysis suggests that developing nations have been lured into a state of dependence upon Western nations [George, 1988]. The regionalism trend is so strong that the decline in multilateral world trade may cause the emergence of three distinct and separate trading blocs centred around the European Community, the Americas, and Asia [Kim, 1992].

The acceleration of international economic interdependence during the 1970s and 1980s is not a phenomenon solely characteristic of industrialised nations:

“Globalization of economic activity is evident not only in industrialised regions but also in less developed countries.”

[Michalak, 1994]

2. Summary of Economic and Political Events in Asia leading up to the crisis

In the appendices, a chronology of critical economic and political events is reported for Indonesia, Malaysia, the Philippines and Thailand.

Prior to the early ninety eighties the laws governing the access to capital markets by foreigners were restrictive. This phenomenon was not only apparent in Indonesia but other countries within ASEAN. Throughout the 1980s there was a change in global political dynamics occurring in developed countries like the UK and US which spilled over into other countries. Whereas, many Latin American countries had been severely affected by their inability to repay loans to Western banks, ASEAN countries were embarking upon a relatively stable economic trajectory. Towards the late 1980s marked a period of privatization of former inefficient state run industries and the 1990s. The High Performing Asian Countries (HPAE) were successful because of their high levels of private domestic investment, better educated labour force, rapidly growing human capital and rapid growth in output and productivity.

“In this sense there is little that is ‘miraculous’ about HPAEs superior record of growth; it is largely due to superior accumulation of physical and human capital.”

“...productivity growth in the HPAEs exceeds that of most other developing and industrial economies. The superior productivity performance comes from the combination of unusual success at allocating capital to high-yielding investments and at catching up technologically to the industrial countries.”

[World Bank, 1993].

The growth in the HPAEs considered in this paper came about due to intensive and extensive growth. With intensive growth the economy grows because it uses new technologies and becomes more efficient, creating more output per unit of inputs. Extensive growth of the economy is due to the use of more resources as inputs, such as more factories, buildings and machines, and has higher participation rates in the labour force. It is generally considered that intensive growth is sustainable, however extensive growth can only be attained in the short-run.

“...Asian growth, impressive as it was, could mostly be explained by such bread and butter economic forces as high savings rates, good education, and the movement of underemployed peasants into the modern sector...if you like,...Asian growth has so far been mainly a matter of perspiration rather than inspiration – of working harder, not smarter.”

[Krugman, 1997]

As Krugman himself says, this conclusion is controversial.

In terms of the crisis, the International Monetary Fund (IMF) viewed these important dates¹:

Phase I (January – April 1997): Lead up to Crisis in Thailand

Phase II (May – beginning July 1997): Thai Crisis

Phase III (Beginning July – mid-October 1997): Crisis engulfs ASEAN-4

Phase IV (Mid-October 1997 – Present): Spillovers across global financial markets:

The Asian financial crisis was very different from past occurrences in other regions, for example Latin America. All governments were more or less in fiscal balance; there was no irresponsible credit creation, or runaway monetary expansion; also inflation was low. In addition, there was no substantial unemployment when the crisis began. However, there was an over reliance upon financial intermediaries as central players in the economies of many South-East Asian nations. Thai finance companies tended to borrow short and lend to speculative investors, largely in real estate. It was these financial intermediaries that contributed to the inflating of a speculative ‘bubble’. The following outlines Paul Krugman’s ‘Bubble Story’:

“The first act was the story of the bubble. It began, we now think, with bad banking. In all of the countries that are currently in crisis, there was a fuzzy line at best between what was public and what was private; the minister’s nephew or the president’s son could open a bank and raise money both from the domestic populace and from foreign lenders, with everyone believing that their money was safe because official connections stood behind the institution. Government guarantees on bank deposits are standard practice throughout the world, but normally these guarantees come with strings attached. The owners of banks have to meet capital requirements (that is, put a lot of their own money at risk), restrict themselves to prudent investments, and so on. In Asian countries, however, too many people seem to have been granted privilege without responsibility, allowing them to play a game of “heads I win, tails somebody else loses.”

Inflating the bubble

“The bubble was inflated still further by credulous foreign investors, who were all too eager to put money into faraway countries about which they knew nothing (except that they were thriving). It was also, for a while, self-sustaining: All those irresponsible loans created a boom in real estate and stock markets, which made the balance sheets of banks and their clients look much healthier than they were.”

The bubble bursts

“Soon enough, Asia was set up for the second act, the bursting of the bubble. The bursting had to happen sooner or later. At some point it was going to become clear that the Panglossian values Asian markets had placed on assets weren’t realistic in this imperfect world, that Asian conglomerates are no better than their Western

counterparts at trying to be in every business in every country. But the collapse came sooner rather than later because speculative bubbles are vulnerable to self-fulfilling pessimism: As soon as a significant number of investors begin to wonder whether the bubble will burst, it does.”

Start of downward spiral

“What actually started this downward spiral? Who cares! Any little thing can set off an avalanche once the conditions are right. Probably the proximate causes were a slump in the semiconductor market and a rise in the dollar-yen exchange rate, but if they hadn't triggered the crisis, something else would have.”

Downward spiral

“So Asia went into a downward spiral. As nervous investors began to pull their money out of banks, asset prices plunged. As asset prices fell, it became increasingly doubtful whether governments would really stand behind the deposits and loans that remained, and investors fled all the faster. Foreign investors stampeded for the exits, forcing currency devaluations, which worsened the crisis still more as banks and companies found themselves with assets in devalued baht or rupiah, but with liabilities in lamentably solid dollars.”

[Krugman, 1998]

The IMF's view was that structural factors were at the heart of the economic problems. First and foremost, the crisis was a financial sector crisis. There were several weaknesses. The financial sectors in Indonesia, Korea, and Thailand lacked proper prudential standards and supervision. For instance, financial institutions had been allowed to borrow from abroad because of inadequate prudential controls on their foreign exchange exposure. The sizeable capital inflows had given rise to investment in equity and property and the risks associated with price bubbles. In the case of Korea, foreign borrowing, channelled through the bank had financed excessive investment of the conglomerates, the so-called 'chaebol'. These conglomerates suffered from very high debt/equity ratios. In addition, a large trade decline during 1996-97 hurt the profitability of the conglomerates and resulted in a string of bankruptcies in 1997 to the detriment of the financial sector. The authorities had in some instances come to the rescue of insolvent financial institutions and prevented them from being liquidated. In all the Asian economies affected by the crisis, there is a need to review the close relationship among the government, banks and the enterprises and ensure that it reflects market conditions and is subject to greater transparency about the financial relations between the partners.

3. Data and Method

The monthly total US dollar (\$US)ⁱⁱ returns used in this study are derived from Morgan Stanley Capital International (MSCI) and the International Finance Corporation (IFC) indices maintained on the Datastream International Equities Database. The use of \$US may be criticised on the grounds that capital controls and restrictions on foreign investment, well known to exist in emerging markets, may reduce the meaningful explanatory power of \$US returns. However, evidence

suggests that domestic currency returns are similar to those of real currency returns, and so justifies the use of \$US returns. Furthermore, by using \$US returns, cross-country comparability of results is ensured [Harvey 1991].ⁱⁱⁱ

MSCI Return Indices

The MSCI international indices consist of value weighted, dividend inclusive data of a broad representation of stocks in different countries. Non-nationals can readily purchase almost all these stocks. However, much criticism has been levelled at MSCI indices because they are weighted towards larger capitalization stocks. The results are thereby biased towards a somewhat more stable return series, characteristic of 'Blue Chip' stocks.^{iv} The MSCI World index covers 80% of the world market capitalization (US\$12.1 trillion) in both developed and emerging markets, and thus is a reasonably accurate proxy for the true market portfolio.^v

IFC Indices

For the returns on Asian stock markets, the data used is provided by the IFC from the Emerging Markets Data Base (EMDB) available on Datastream. It includes information on more than 1,800 stocks in low and middle income nations totalling US\$1.2 trillion in market capitalization. This represents approximately 10% of the MSCI world market portfolio. Similar to the MSCI, the IFC uses a subset of stocks in each country based on a target market share of 60% to 75% of total market capitalization. The indices are intended to represent performance measures of the most actively traded stocks across a diversified range of industries. The data is calculated from monthly, value weighted index returns, with dividend reinvestment, and adjusted for stock levels (new shares, rights issues, and splits), and market capitalization. A detailed description of the IFC indices definitions, methodologies, and their construction is contained in "The IFC Indexes" manual [IFC, 1997]. Information on six Asian markets was collected: Indonesia, Malaysia, Philippines, South Korea, Taiwan and Thailand.^{vi}

Regional Indices

In this study we construct our own Asian aggregate index. Regional indices could be criticised in testing the relevance of regional returns to the country in question. This is especially the case for countries with a large market capitalization. To measure the true association of returns in a country to its region, this study constructs an equally weighted regional index that removes the returns of the country being analysed, respectively. With this innovation, one may accurately assess the relationship of returns within the region.

Return Construction

The time series data from MSCI and IFC are not provided in a total return form. Thus, the total percentage return (TR%) series is calculated by:

$$TR\% = \frac{(P_t - P_{t-1})}{P_{t-1}}(100) \quad (1)$$

where P_t = price index value at time t, P_{t-1} = price index value one month prior

Survivorship Bias

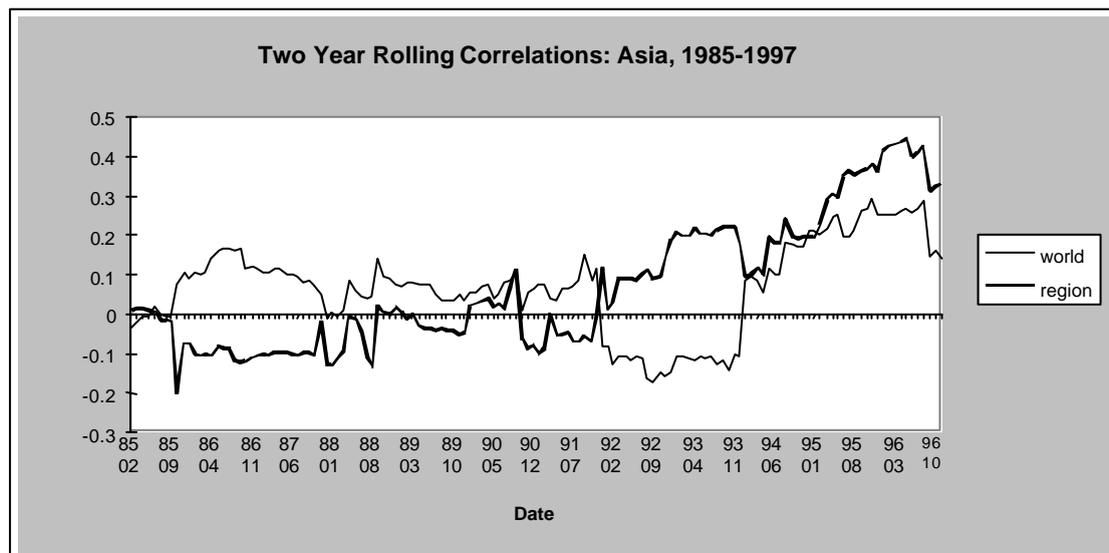
The early data is problematic because of a survivorship or 'look-back'. A question that can never be answered is whether the IFC would have chosen the same portfolio of assets throughout the life of the index. Indeed, some of the stocks may have 'dissolved' during the time span of this study. Hence, there may be evidence of survivorship bias. A study has examined the potential for damaging effects of look-back bias by splitting the sample to include and exclude data to test for survivorship bias. These tests showed that look-back bias did not effect the results enough to damage the significance of outcomes [Harvey, 1995].

Another source of bias occurs in both the IFC and MSCI data where the stocks included in the respective indices are chosen on the basis of historical and expected future performance, size, and liquidity. This implicitly reveals information about a firm's past history and is evidence of another form of bias.

Correlation Measures

There is evidence in the past literature to suggest that total equity returns in emerging stock markets are less correlated with the world market portfolio than industrial markets [Harvey, 1995]. However, there is also evidence to suggest that Asian emerging stock markets are becoming increasingly correlated with the world market portfolio over time.^{vii}

Figure 1: Two Year Rolling Correlation in Asia



Observing Figure1 shown above which reflects the average correlation a regional and world index for the six Asian countries, there is definite evidence that the regional

equity market relationship in Asia has become stronger since 1991. Prior to the intense liberalization phase in Asia, equity markets were positively closely correlated with the rest of the world (i.e. the world market portfolio) and simultaneously regional correlations were negative, but of similar magnitude. This correlation with regional markets was high and increasing directly after the liberalization phase that occurred from 1991. Throughout the 1980s regional correlation between the Asian markets in this study were very low compared to the world.

Overall the correlation results are, thus, direct confirmation that liberalization has had a direct impact on an increasing regional relationship between proximate stock markets. It may have been these very strong growth in regionalism coupled with dramatic liberalization that increased the impact of the recent Asian financial crisis. This was in addition to the lack of regulatory framework and prudent financial surveillance.

4. Conclusion

The purpose of this paper was to examine the way in which stock markets in Asia vary over time in terms of their correlations with world and regional indices. Prior to the liberalization of markets in the early 1990s in Asia, equity markets tended to exhibit higher correlations with respect to a world index and lower regional correlations. Asian countries embarked upon a radical programme of reform throughout the 1980s and 1990s which was aimed at encouraging inflows of portfolio equity capital. However, whilst liberalization brought about an influx of funds many economists now argue that economic reforms lagged behind reinforcing financial stability and the mitigation of systemic financial risk. We believe that the Asian financial crisis was brought about by a combination of unsustainable liberalization, over extended regional dependence and a lack of prudent surveillance of financial institutions. We argue that financial contagion effects may be reduced by encouraging Asian country governments to adopt a portfolio approach to their trade patterns rather than strengthening intra-regional trade which increases contagion. A future extension of this research may be to examine in more detail the theory underlying 'regional integration' and its impact upon the dissipation of exogenous financial and economic shocks amongst neighbouring countries.

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Endnotes

ⁱ See Section III of the IMF World Economic Outlook: Interim Assessment, December 1997.

ⁱⁱ The IFC and MSCI use the World Market/Reuters Closing Spot Rates Service as well as the Wall Street Journal to calculate US dollar index levels.

ⁱⁱⁱ Harvey (1991) provides a recent summary of countries included in the MSCI portfolio and their weightings. Regressions run by Harvey incorporating exchange rates into a two factor world model showed that exchange rates did not enhance the explanatory power of results by more than 5%

^{iv} The returns on the Morgan Stanley Composite Index (MSCI) data are similar to widely quoted country index returns such as the Centre for Research in Security Prices (CRSP) at the University of Chicago (UC) which is widely regarded in much of the finance literature as the premier source of data for high class publication. Yet, it is largely inaccessible to the academic world outside the closed doors of UC. Harvey (1991) shows that there is a 99.1% correlation between the MSCI US returns and the New York Stock Exchange (NYSE) value weighted return calculated by CRSP, and thus may be thought of as an accurate measure.

^v Whereas the MSCI US represents only 30% of the world portfolio. Numerous papers have, however, found that the US is a significant driver of world stock markets, especially in developed nations.

^{vi} The inclusion of countries in our sample of Asia is restricted by the fact that data is not available for every Asian country over the time period. Thus our analysis is a broad appraisal of regional integration in Asia. Singapore and Hong Kong are omitted from our sample because these markets have long been established to have highly integrated capital markets.

^{vii} For example, Buckberg (1995) finds that data from 1976-84 shows that the correlation between returns in emerging equity markets and the MSCI World Index had no country above 0.20. In the later data set from 1985-91, Buckberg (1995) found that only seven emerging markets exhibited a correlation measure above 0.25.