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IMPACT ON 'EAST ASIA': 1997-98 ASIAN CRISIS VS. 2007-09 GLOBAL FINANCIAL CRISIS

Tayyeb Shabbir*

I. INTRODUCTION

The Asian Financial Crisis of 1997-98 and the current Global Economic Crisis of 2007-09 each set off almost ten years apart. These two episodes have had significant and, in the latter case, ongoing impact on major economies around the world. Regarding these two crisis episodes, the underlying mechanisms, the regions that were the epicenters and the contagion processes had certain similarities but also had major differences.

The objective of this paper is to analyze certain aspects of the relative impact of the 1997-98 Asian Crisis and the 2007-09 Global Economic Crisis on East Asia which is a major economic region with above-average growth performance and significant prospects. Unless otherwise stated, the region ('East Asia') included in this analysis will generally be taken to consist of China, Taiwan, Singapore, Thailand, South Korea, Indonesia, Malaysia and the Philippines. Since the epicenter of the 1997-98 crisis was in East Asia, it makes the region a very interesting case study of the comparative effects of these two crisis episodes.

After providing a brief background to each of these crisis episodes, this paper will explore a select number of aspects where these crises differed in terms of their interactions as well as impact on East Asia. More specifically, this study will focus on the following four such aspects.

1. Role played by the dynamics of Financial Innovations.
2. Comparative Transmission Mechanisms.
3. East Asia's Emergence as a Leading Region of the World in the aftermath of the 2007-09 Global Financial Crisis.
4. Global Imbalances and the 2007-09 Global Financial Crisis.

I: Brief Background: 1997-98 Asian Crisis[1]

As is well known, that the 1997-98 Asian Crisis refers to the onset and the aftermath of the currency crashes with attendant sharp declines in output growth and plummeting

* Associate Professor of Finance, Department of Finance, College of Business Administration and Public Policy, California State University Dominguez Hills, Carson, CA 90747, *E-mail: tshabbir@csudh.edu*

stock markets in many of the previously fast-growing countries in East Asia during 1997-98 and it was triggered by Thai Baht's devaluation on July 2, 1997. Amongst the countries that were particularly hard hit were Thailand, Republic of Korea, Indonesia, Malaysia and the Philippines (often dubbed as the 'Affected Five'). For this group of countries, the average decline in the 1997 real GDP growth was about 10 per cent from the trend value in 1996, the currency devaluations ranged from 30% to 80% and stock markets declined by as much as 70% which was the case of Indonesia.

Occurring on the heels of past economic achievements of historic proportions ('miracles'), these severe economic 'shocks' were particularly painful as expectations of an ever-increasing living standard had to be sharply and suddenly pared down in these countries. After all, during the three decades preceding the crisis, these East Asia countries had enjoyed a period of remarkable economic growth as well as social sector achievements. The decades leading up to the crisis had witnessed an average real GDP annual growth rate of more than 7 per cent, a decline in poverty from an incidence of 6 in 10 to 2 in 10, income per capita increases of up to ten-fold in Korea and four-fold in Indonesia, Malaysia and Thailand, nearly 100 per cent primary school enrollment, remarkable reductions in infant mortality and increases in life expectancy.

II. BRIEF BACKGROUND: 2007-09 GLOBAL FINANCIAL CRISIS[2]

The global financial crisis of 2007-2009 started as the so-called 'sub-prime' crisis in the U. S. during late summer, 2007. Since early 2000s, the U. S. had pursued 'easy' monetary policy that kept interest rates low. Combined with a lax regulatory regime in issue of credit especially for housing mortgages, this set the stage for a huge housing asset bubble. In addition to the U. S., there were similar bubbles that had developed in European and other Advanced Economies. In the relevant literature, it is often hypothesized that the global imbalances (large current account surpluses and deficits across countries) of late 1990s and early 2000s had precipitated an environment of 'cheap' money where surplus funds were chasing yield and excessive risk taking had become the norm.

In this backdrop of evident excessive risk taking and high leverage which was certainly the case in the U. S. housing market, financial innovation known as securitization went awry and proved to be an immediate trigger for the financial crisis that ensued.

The derivative securities in the form of Mortgage Backed Securities (MBS) and, closely related, Collateralized Debt Obligations (CDO) were meant to be innovations which were to allow the risk of underwriting to be carried away from the originating financial institutions to a broader class of willing investors whose actions would also replenish the liquidity for the originating financial institution so they can resume mortgage lending. The MBS and CDO market had grown immensely in the preceding few years. In fact, certainly before the outbreak of the crisis, the above move away from the traditional 'originate-and-hold' banking model to 'originate-and-distribute' mortgage origination model was almost unequivocally heralded as one of the most important factors responsible for the growth of home ownership in the U. S. in the few years since 2000-2001.

However, the otherwise positive financial innovation of 'securitization' (MBS and CDO) proved to be 'faulty' since it failed to work properly with the existing structure of financial institutions. In addition, 'lending exuberance' manifesting itself in lax underwriting standards at a time when real estate boom was waning in 2006, deficiencies in assessments of rating agencies (as well as 'over reliance' of investors on these assessments to the exclusion of other due diligence measures) and evident regulatory failures were the various factors that ultimately led to a serious yet uncertain degree of impairment of the values of MBS and CDO securities. This pervasive uncertainty created serious practical difficulties.The various financial institutions holding these securities were faced with illiquid markets and rapidly falling market values of their assets and, as a result, they started deleveraging to conserve capital.[3]This resulted in a 'credit squeeze' with its severely negative repercussions on the real sectors of the Advance Economies where households and businesses pulled back from spending. By depressing exports from the rest of the world to the Advanced Economies as well as world wide reduction in trade volume, this reduction in aggregate demand became the most important channel of transmission of this recession to the Developing Economies.

Besides the afore-mentioned behavioral mechanism related to the banking sector's credit freeze and the consequent reduction in aggregate spending by the private sector, the other main channel of contagion was the 'crisis of confidence' unleashed by the breakdown of the securitization market and the very onset of the recession in the U. S. in December, 2007. By the end of 2008, the U. S. 'Sub-prime' crisis had become a full blown global financial and economic crisis.

III. ROLE PLAYED BY THE DYNAMICS OF FINANCIAL INNOVATIONS

While one aspect of the causal mechanism that played a key role in precipitating each of these crises had to do with a certain failure or the 'dark side' of the financial system, this apparent similarity does also mask myriad nuanced differences. In other words though the financial systems "failed" in each of the two crises, they failed for different reasons and through different mechanisms.

In the case of the 1997-98 Asian Crisis, the region was innovating with financial liberalization (i.e. determining interest rates, credit allocation and capital movements on the basis of market forces) in the context of an historical transformation – not only were these countries going through transformational economic growth ('miracle') they were actively embracing financial liberalization in place of a traditional 'relationship' based system. Like most innovations, this was, generally speaking, a positive development, however, this episode of financial innovation went awry because of the speed with which it was introduced and the institutional as well as exchange rate context in which it was introduced.

There was a lively discussion in the years immediately following the Asian Crisis that revolved around the question of how appropriate or desirable this policy of liberalization was or at least were there sufficient pre-conditions present for such a policy to have the desired effect. Lee (2002) gives a very good account of this debate. Besides

a minority view such as expressed by Wade and Veneroso (1998) that, in fact, maintained the relative superiority of the status quo, mostly the debate revolved around how much of a government "restraint" may have been optimal to 'temper' the textbook free market notion of liberalization (Hellman *et al.* (1997)) and, as maintained by Camdessus (1998), if the *laissez-faire* version was in fact optimal, whether the failure was due to the speed or the 'manner' in which the process was introduced. Masuyama (1999) as well argues that financial liberalization in Asia was carried out "without due consideration for readiness and sequencing", adding that the policy was often adopted under "foreign pressure". In retrospect, it is widely recognized that the concept of "liberalization" was not molded sufficiently to conform better to the local conditions and perhaps, most importantly, there was inadequate care taken to ensure proper sequencing as well as that the institutional setting was well prepared. A general conclusion that the empirical studies for eight East Asian countries as reported in Lee (2002) is that the countries most affected by the crisis did not have the institutional preconditions for a safe and sound, privately owned financial system since those countries were still in the early stages of establishing effective, democratic political and legal systems. This fact of financial innovation gone awry was a significant contributor to the vulnerability of East and Southeast Asian Economies in terms of the 1997 crisis.

On the other hand, a different kind of failure of the financial system i.e. the 'malfunction' of the securitization innovation played a critical role in the precipitation and of the 2007 Subprime Credit Crisis in the U. S. which eventually morphed into a recession that spread world-wide. See Shabbir (2009).

Regarding the 2007-09 Global Financial Crisis, securitization was a financial innovation which in a laboratory-like, antiseptic environment would be a flawless idea, however, it proved to be carrying a faulty hinge or two in the practical world. The derivative securities in the form of Mortgage Backed Securities (MBS) and, closely related, Collateralized Debt Obligations (CDO) were meant to be innovations that would allow the risk of such underwriting to be carried away from the originating financial institutions to a broader class of willing investors whose actions would also replenish the liquidity for the originating financial institution to resume. The much heralded world of Structured Investment Vehicles was thus born and the MBS and CDO market grew immensely[4]. In fact, certainly before the outbreak of the 'Sub-prime Crisis', the above move away from the traditional 'originate-and-hold' banking model to 'originate-and-distribute' mortgage origination model was almost unequivocally heralded as one of the most important factors responsible for the growth of home ownership in the U. S. in the past few years since 2000-2001.

However, ex-post this innovation is ever more proving to be 'faulty', especially in its interactions with the existing financial regulatory infrastructure. These fault lines started showing more so when the real estate boom started waning towards the end of 2006. Ironically enough, when the subprime mortgage crisis first started brewing in mid 2007, the dominant opinion was that it will not be a significant event which of course turned out not to be the case.[5] Serious questions regarding the validity of risk assessment of MBS undertaken by rating agencies and other serious market imperfections including

possible fraud made it very difficult to judge the true degree of value impairment of these derivatives. As many investment banks, hedge funds and even some mortgage originators held these MBS in their portfolios these losses led to serious capital inadequacies by lowering their capital/asset ratio often leaving them in need of capital infusion and or asset retrenchment – the later translating into drying up of new credit as well as resulting in illiquidity in the secondary market for these MBS. Also, the unexpected and sizeable impairment of the values of MBS resulted in a 'crisis of confidence' a self-fulfilling channel of contagion which made its impact felt by significantly curbing appetite of investors for even 'healthy risk' and escalating 'risk premium'. Cox et al (2010) and, Nieuwerburgh (2010) are two of many attempts that link securitization failures to the 2007-09 global financial crisis.

Thus, ironically enough, financial innovations gone awry were the major contributory factors in each of the two crises, however the premises and the modus operandi were a little different in each case.

IV. COMPARATIVE TRANSMISSION MECHANISMS

For the 1997-98 Asian crisis, the fact that the epicenter of the crisis was in the region i.e. Thailand being forced to devalue Baht on July 2, 1997 the transmission mechanism was intrinsically different from that in the 2007-09 Global Financial Crisis with its epicenter in the U. S. and Europe. In the case of the former crisis, the devaluation of baht was followed by capital outflows from East Asian countries (as well as South East Asian ones), however, the contagion traveled in the shape of a panic exit from all countries that appeared "similar" to Thailand in terms of their characteristics. Thus there was a significant amount of risk aversion when trustworthy information was hard to come by. Besides this "crisis of confidence" related channel there was some degree of contagion via equity markets, financial markets in general and also trade channel.

In the case of the 2007-09 crisis, there was a period of time after summer of 2007 when the East Asian Economies (and Asian Economies in general) kept going and there was some talk about "de-coupling" of these economies from those of the Advanced Economies. However, the interdependence was very much there and it was only a matter of time that contagion flowed through the international trade as well as financial channels – the latter was not as strong as the former. The economic growth downgrades were positively correlated with the degree of trade as well as financial "openness" of the countries. (See Bernanke (2009)). It is true however, that these countries were not in the midst of the banking and financial sector distress as was the U. S. or soon afterwards was Europe.

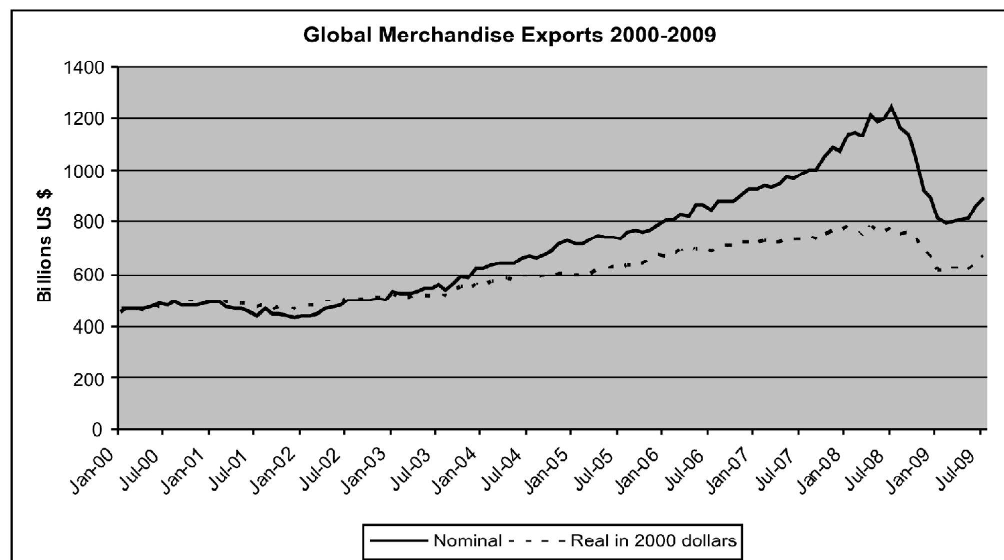
In terms of the International trade channel, after a period of strong growth since the beginning of the decade, international merchandise trade plunged about 20 per cent in real terms (35% in U. S. dollar terms) from the pre-crisis peak to its trough[6] in early 2009 (Figure 1). This very sharp decline in global trade was precipitated by a multitude of factors related to the crisis. These factors included (a) severe recession in the Advanced Economies that reduced aggregate spending in general including on imports, (b) extreme

uncertainty about economic future as well as lack of credit financing that led to a postponement of purchases of durable goods by consumers and investment goods by businesses – both these categories figure prominently in international merchandise trade and (c) reduced availability of trade financing that also impinged on the volume of international trade.

Generally speaking, the severe and sudden collapse in the global merchandise trade was the most important channel that transmitted the adverse effects of the financial crisis of 2007-2009 unto the countries around the world many of which were heavily trade dependent especially in Asia.

According to a simple cross country regression analysis of growth rate declines and degree of trade openness (measured as Exports + Imports as a ratio of GDP) countries such as Korea, Taiwan, Thailand and Malaysia and especially Singapore witnessed their GDP growth rate decline relatively more while China, Indonesia and India, who have a relatively score on the "trade openness" measure ended up experiencing lower declines in their GDP.

Figure 1: Global Merchandise Exports 2000-2009



Source: Speech given by FED Chairman, Bernanke on October 19, 2009. *http://www.federalreserve.gov/newsevents/speech/bernanke20091019b.htm*

Again though the East Asian countries were not directly involved in 'Subprime' securities issuance, the financial channel did carry some significant degree of contagion. Again Bernanke (2009) measures financial openness by a country's net international assets position and found the same inverse empirical relationship between economic growth rate downgrades and degree of financial openness measured as above. Again, Taiwan and Singapore both of whom have high measure of financial "openness" suffered

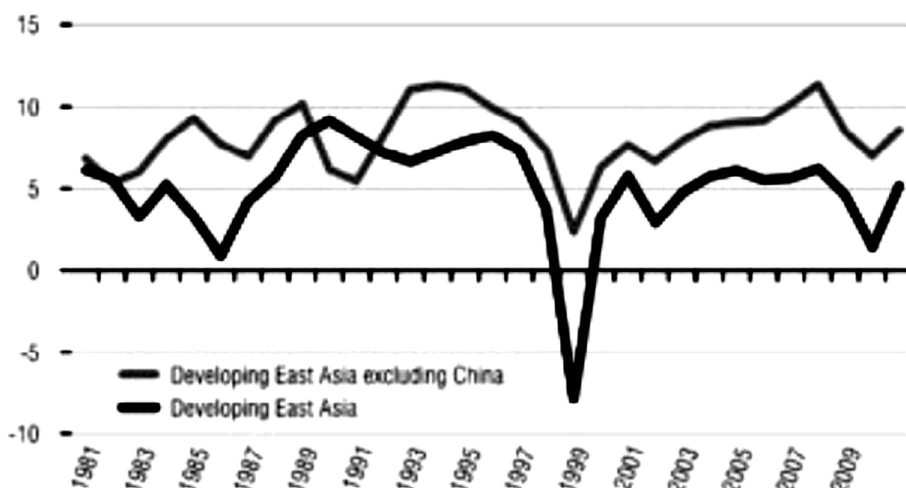
the most while China, India and Indonesia were somewhat protected because of their low score on this measure. So the speculation about "decoupling" proved to be just that. Though the trajectory and time line of the contagion process was little unconventional the economic interdependence through trade and financial channels was very much there in the case of the 2007-09 crisis.

It is important to recognize that openness is a good long run strategy even though in the short run a country may experience a bigger GDP growth downgrade in a crisis situation.

V. EAST ASIA'S EMERGENCE AS A LEADING REGION OF THE WORLD IN THE AFTERMATH OF THE 2007-09 GLOBAL FINANCIAL CRISIS

In the aftermath of the 2007-09 Global Financial Crisis, East Asia is emerging as the region of the world with the relatively fastest economic growth rate. As one of the key producing regions for capital goods and big-ticket items, at the peak of the crisis during September 2008 and March 2009, East Asian economies experienced dramatic declines in trade and production. The region also experienced a sharp markdown in business investment as well as household wealth. However, East Asia's rebound from the global downturn over the course of 2009 was quicker and more robust than in other parts of the world. (World Bank (2010a)). The region's real GDP growth rate for 2010 is expected to be 8.7% while it is 7.8% for 2011. In comparison, the corresponding growth rate for the composite category of "All Developing Countries" is 5.2% and 5.8% respectively while for "High Income Countries" category the real GDP growth rate for 2010 is only 2.7 % and it is 3.2% for 2011. Thus East Asia is on the way to a very strong recovery from this current recession. Largely thanks to China, the East Asian region's real output, exports and employment have by and large returned to the levels before the crisis. (World Bank (2010b)).

Figure 1: Real GDP Growth (Per cent Change, Year on Year)



In a larger context, Asia as a whole is growing quite strongly and is in fact proving to be the engine of growth for the Advanced Economies too. According to IMF (2010), the 2007-09 crisis has underlined the emergence of Asia as a "global economic powerhouse." According to the IMF estimates, within five years, Asia's economy (for this estimate, India, Australia and New Zealand are included in this category) will be about 50% larger than it is today, will account for more than a third of world output and compare in size with the economies of United States and Europe. In fact, in the longer run the position of Asia becomes even more dominant. The study estimates that by 2030, Asia's GDP will exceed that of the G7 Industrial Economies making it the largest economic region at that time. There are some important caveats to this prognostication though. The exit form the stimulus policies ought to be successful and well-timed and there is no additional commodity price shocks like the ones that we experienced in 2007 and early 2008. The domestic demand should continue to increase its role in the economy as should good policy regimes. This need to continue to pursue sound policy management regime is imperative, of course, for East Asia too. China, on the one hand and other East Asian economies on the other, need to be nimble about the need to stay on course. To quote from World Bank (2010 b),

> "For China, rebalancing the economy as emphasized in the 11th five-year plan will be key. Rebalancing has several dimensions, including restructuring the composition of economic growth by enabling a larger role for the service sector and private consumption, away from investment-heavy export-led growth, and encouraging more environmental sustainability. For middle-income countries, the priority is more investment in physical and human capital to move up the value chain in production and exports. Low-income countries need to break into manufacturing and become part of global and regional production networks. Commodity exporters will need to strengthen fiscal rules and frameworks to translate volatile external revenues into long-term sustainable growth. And, last but not least, the Pacific islands will need deeper integration with their nearest large market."

On the other hand, upon recovery from the 1997-98 Asian Crisis, the East Asian countries did recover, however it took them substantially longer that the 2007-09 Crisis (Table 1 and 2).

Table 1
East Asian GDPAverage Annual Percentage Growth

	1987–1996	*1997–1999*	*2000–2006*
Hong Kong	5.2	-0.8	4.7
Indonesia	7.1	-6.4	4.9
Korea	8.1	1.0	4.6
Malaysia	9.5	-0.8	4.7
Philippines	3.6	1.4	4.6
Singapore	9.2	2.8	4.6
Taiwan	7.2	5.1	3.3
Thailand	9.5	-3.3	5.1
East Asia*	7.6	0.0	4.5

Table 2
East Asian GDP Per capita

	*Change post-crisis** *Per cent*	*Years to recover*
Hong Kong	-6.4	3
Indonesia	-15.0	7
Korea	-7.5	2
Malaysia	-9.5	6
Philippines	-2.7	3
Singapore	-4.6	2
Thailand	-11.6	5
East Asia**	-8.8	3
Memo items:		
United States (1981/82)^	-3.8	2
Australia (1990/91)	-3.8	3

*Taiwan did not experience a contraction in GDP

**Excluding China and Japan

^Assumed to start in September quarter 1981, as per NBER dating committee

Source: IMF, CEIC, Thomson Financial, ABS, RBA

For East Asia, while the recovery after the 1997-98 Asian Crisis was not as powerful as it has been after the 2007-09 Global Financial Crisis, it was nevertheless significant. To quote for the World Bank (2007),

> "Asia in 1997-98, the region is far wealthier, has fewer poor people and a larger global role than ever before. Led by continued strong growth in China, Emerging East Asia now has an aggregate output of over $5 trillion, double the dollar value just before the crisis. Real per capita incomes in the previously crisis affected economies (Indonesia, Korea, Malaysia, Philippines and Thailand) have significantly exceeded pre-crisis levels. For Emerging East Asia as a whole they are some 75 per cent higher. The poverty rate at the $2 a day level has fallen from 50 per cent of the population to 29 per cent today."

The latest Update, World Bank (2010 b), also compares the region across the two crisis episodes and it is clear that after the more recent crisis Asia has emerged much stronger and put is putting the crisis behind it much quicker (Table 3).

VI. GLOBAL IMBALANCES AND THE 2007-09 GLOBAL FINANCIAL CRISIS

An interesting issue that is starting to gather increasing amounts of scholarly attention is the nature of the possible link between the global imbalances (large current account surpluses and deficits across countries) and the Global Financial Crisis of 2007. One rather provocative hypothesis is that by amassing large current account surpluses over the years, the 'over-saving' countries that included the East Asian ones, ended up providing pre-conditions for the outbreak of the 2007 Global Financial Crisis. The argument goes that these surpluses by lowering the cost of capital eventually resulted in 'yield chasing'

Table 3
The Region has Emerged in Better Shape from this Global Crisis than from the 1997-98 Asian Financial Crisis

	After the 1997-98 Asian financial crisis	*After this global crisis*
The global economy …	… grew 3.6 per cent in 1999 and 4.8 per cent in 2000	… contracted 2.2 per cent in 2009, projected to expand 2.7-3.2 per cent in 2010-11
Real GDP in developing East Asia excluding China	… contracted 8 per cent in 1998	… contracted 0.6 per cent in the first half of 2009 before recovering to growth of 1.3 per cent in 2009 as a whole
The real GDP of East Asia's MICs …*/	… took one year to return to pre-crisis levels (until end-2009)	… took almost four years to recover to pre-crisis levels (third quarter of 2001)
China's real GDP…	… slowed to 7.8 per cent in 1998 from 11 per cent on average during 1990-96	… slowed to 8.7 per cent in 2009 from 10 per cent on average during 2000-2007
Exports…	… contracted 5.3 per cent in 1998, rose 21 per cent in 2000	… contracted 24 per cent y-y in first half of 2009, rose 4.8 per cent y-y in the last quarter of 2009
Current accounts …	… shifted from deficit to surplus, with the largest swing in Thailand (8 per cent of GDP deficit in 1997 to a 6 per cent surplus in1998)	… surpluses narrowed from 8.7 per cent on average in 2007 to 6.4 per cent in 2009
Real exchange rates …	… were 20 per cent depreciated in late 2000 relative to early 1997	… depreciated 3.5 per cent y-y in late 2008, but recovered to pre-crisis levels by the end of 2009
Fiscal deficits …	… widened sharply to 6.3 per cent of GDP in 1999 from near balance in early 1997	… rose moderately by 2.7 per cent of GDP on average by 2009 from 1.1 per cent GDP in 2007
Public debt…	.. almost doubled to 39 per cent of GDP by end-2000 from end-1997	… increased modestly to 41 per cent of GDP by the end of 2009 from 38 per cent at end-2007
Non-performing loans…	… peaked at 28 per cent of total loans in 1998, with 45 per cent in Thailand and 49 per cent in Indonesia	… remained little changed at about 3 per cent during 2009

Sources: GEP, national authorities, IMF WEO 2009, and Bank staff estimates and projections.
*/ the East Asia's MICs here refer to Indonesia, Malaysia, Philippines, and Thailand.

and excessive 'risk taking'. However, there are also more benign characterizations of these relatively large current account surpluses that actually result from a multitude of factors.[7] One motivation for growing these surpluses may be the 'lesson' East Asia perhaps learned from the 1997 Asian Crisis about the need to accumulate sufficient International Reserves to 'protect' the domestic currency and the economy from any such 'shocks' in the future. This is a very intriguing area of future research which also seems to provide a rather ironic 'bridge' or link between the two crisis episodes – the 1997 Asian and the 2007 Global Financial Crisis.

VI. CONCLUDING REMARKS

After briefly describing the two crisis episodes – the 1997-98 Asian Crisis as well as the relatively more recent 2007-09 Global Financial Crisis, this paper explores a select number of aspects where these crises differed in terms of their interactions with as well as impact on East Asia. And finds that there are interesting and significant ways in which East Asia experienced each of these crises episodes and was transformed by each in a different fashion. In particular, the role of the 'faulty' financial innovations is noted in precipitating these crises. Also, evidence is presented that shows that, unlike in the case of the 1997-98 crisis, going forward, East Asia is slated to be economically dominant region in the world after the recent crisis. Finally, the issue of the nature of Global Imbalances and the possible relationship with the Global Financial Crisis of 2007-09 is explored in a preliminary fashion and will be looked at more intensely as a matter of future research.

NOTES

1. Some of the material in this brief description relies on Klein and Shabbir (2007).
2. Some of the material in this brief description relies on other related work by the author.
3. For a representative model of how financial institutions were forced into deleveraging, see Shabbir (2008).
4. Asset Backed Securities issued were about $ 1.10 trillion in 2006, dropped to only $ 10 billion in 2009. Federal Reserve Flow of Funds Statistics as cited in Dugan (2010).
5. Even Fed chairman, Bernanke, remarked in May 17, 2007, "All that said, given the fundamental factors in place that should support the demand for housing, we believe the effect of the troubles in the subprime sector on the broader housing market will likely be limited, and we do not expect significant spillovers from the subprime market to the rest of the economy or to the financial system."
6. Ben Bernanke, "Asian and the Global Financial Crisis", Speech given October, 2009. *http://www.federalreserve.gov/newsevents/speech/bernanke20091019a.htm*
7. Obstfeld and Rogoff (2009) size up this debate and also provide a rather plausible characterization of the possible link between these Global Imbalances and Global Financial Crisis of 2007. Also, as a narrative of the role of the SWF in the Middle east context, see Shabbir(2009).

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