

Comparing the Causes and Consequences of the Asian and Global Financial Crises on Southeast Asia

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Abstract: The arrival of the global financial crisis (GFC) just a decade after the Asian financial crisis (AFC) may have settled for now the argument about whether the world had learned enough so that economic crises are no longer possible. But it has not settled the argument of whether lessons were learned. This paper deals with this question by focusing on the experience of Southeast Asia, which has borne the full impact of both crises. For this region, these crises emerged through a combination of factors that were as different as they were similar between one crisis and another. The lessons that were learned or not learned in interpreting those factors with respect to each crisis determined each country's response to that crisis, with politics being an important part of the calculus. Indicators just before the onset of the GFC and of its impact showed that some, but not all, lessons from the AFC were indeed learned. Whatever the lessons learned, however, Southeast Asian stock markets were decimated but which quickly rebounded. Nor would learning lessons guarantee insulation from future crises because the external environment facing Southeast Asia has changed and will continue to change.

Keywords: Asian financial crisis, global financial crisis, regulation, Southeast Asia
JEL classification: G01, G15

1. Introduction

Some eminent economists like Lucas (2003) had argued that the world had learnt so much that the main problem of economic depressions has been solved. In now famous books that looked at the history of economic crises over the years, Krugman (2009) and Reinhart and Rogoff (2009) posited that lessons were never learned.¹ With

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¹ Rajan (2011) was similarly skeptical. However, Heng and Lim (2009, p. 2) thought otherwise, noting “no two financial crises are the same”.

Southeast Asia having experienced two economic crises over the period 1997–2009, it is a question that should now be posed for this region. The starting point for such an enquiry is to compare similarities and differences between the crises.

Notwithstanding the arguments of Keynesian exponents on the need to reform the financial architecture of the world, and especially flows of capital to the developing world (see Akyuz, 2002; Akyuz & Cornford, 1999; Pringle, 2012; Stiglitz, 2004) most mainstream work seem to assume that these crises are unlikely to occur if markets are left to coordinate the allocation of financial resources and instruments. Although there has been discussions of the state of the world and region after the Asian financial crisis (AFC), most accounts came around the time of the onset of the global financial crisis (GFC) (for instance, Eichengreen, 2007; Heidrick & Struggles, 2007; Stiglitz, 2007; Yuen & Wee, 2006) or just after that (Akyuz, 2010; Lim & Lim, 2010), with no clear indication at the time of the magnitude and duration of the GFC's impact. Whatever the dates of these papers, their focus on Asia, where clues were sought for the next crisis, suggests that there was a widespread perception that the next crisis after the AFC would likewise originate in the developing world.² History has proven otherwise. An analysis on the impact of the GFC on Southeast Asian economies, and its comparison with that of the AFC, is certainly appropriate.

Although these impacts, particularly relating to the AFC, are well documented, comparing impact across the different crises is important because it tells us about the lessons learned after the AFC. It is also important to determine if, even were the lessons learned, considerations relating to the nature of the sources of the crises, as well as the external environment, could nevertheless have offset the benefits of these learned lessons. In other words, would learning lessons necessarily mean that “this time is different”? Further, looking at the evolution of the GFC, are there lessons that can be learned so that the severity of the next crisis, when it does arrive, can be reduced?

The focus of our discussion is Southeast Asia. Unlike America and Europe, Southeast Asia has borne the full force of both the AFC and the GFC. It is also one of the most globally integrated regions in the world with extensive flows of trade and investment, so that the external environment plays a vital role. Finally, it has been a test bed for both neoliberalism and a significant state role, allowing discussion of the role of each in the crises.

A paper by four economists (Park et al., 2017) of the Asian Development Bank (ADB), written twenty years after the AFC, attempts to draw lessons learned and anticipate future challenges, based not on “the political, corporate, or economic policy conditions that may or may not have set the stage for the AFC” but on “three common factors that directly triggered the crisis, namely currency mismatches, maturity mismatches and inefficient allocation of foreign capital flows.” The ADB economists also examined the new challenges presented by global financial trends to the region's policymakers – particularly, (i) more pronounced financial cycles, and (ii) financial globalisation and deeper interconnectedness.

² The notable exceptions include Akyuz (2010), Krugman (2009), Lim and Lim (2010), Stiglitz (2007) and Woo (2007), who focused on the international financial architecture.

The focus of this paper, in addition, is on the nature and origin of the GFC and the AFC, whether the crises in SEA were generated by internal or external factors, whether the crises were regional or global on their impact, on what was the state of underlying economic and financial conditions of the individual Southeast Asian economies, as well as on the state of domestic and external demand these economies faced during the two crises, the mechanisms through which each of the crisis was transmitted, how good or bad was economic and financial management of these economies before and during the crises, what were the nature of the reforms carried out during and after the AFC, and to what extent were lessons learned by the Southeast Asia economies policy makers. Given the openness of these economies, the paper also explores the extent to which they can be insulated from major external shocks, and on how best they can be prepared for the inevitable next time.

This paper is organised as follows. The next section examines the origins of the two crises to set the context for analysing their impact. We have avoided referring to “causes” because in both crises, this word remains contentious. Section 3 looks at the external environment facing Southeast Asia at the onset of each crisis. The impact of the crises is examined in Section 4. Section 5 concludes with observations regarding whether lessons were learned and the extent to which they helped mitigate the next crisis.

2. The Crises in Context

To compare the impact of the AFC and GLC, we need to examine the contexts. When we look at both crises, the striking commonality between both is the lack of agreement among scholars between the causes of each. There is, however, not much debate on the triggers for each outbreak (see also Krugman, 2009).³ With the AFC, it was a speculative attack on the Thai baht in July 1997 based on the assumption that the currency was overvalued but more importantly because the emerging bubble in these countries left them vulnerable for such attacks (UNCTAD, 1996).⁴ First the fear of and then actual devaluation led to a flight of portfolio capital, as well as the withdrawal of foreign-owned bank deposits,⁵ which had rushed to East and Southeast Asia, the newly labelled “emerging markets”⁶ with the end of the Cold War, in pursuit of higher yields than could be obtained in the West and Japan around the time its “lost decade” began. This attack triggered the massive sell-off of other Asian currencies having similar characteristics as

³ There is of course no dispute that these crises began with the financial sector before moving on to the real sector. This was recognised by Keynes (1936) himself in his seminal work.

⁴ UNCTAD (1996) had already warned the East Asian economies over the possible crisis following short-term debt service and current account deficits exceeding the respective international reserves of the individual countries. However, Dunn (2001, p. 33), citing the fact that Southeast Asian countries' exchange rates might have risen, thanks to the inflow of capital, if left unpegged, came to the conclusion that “the success or failure of an economy as a supplier of products that are saleable in the world market depends less on the exchange rate regime than is commonly supposed.”

⁵ Some of these deposits were carry trades to take advantage of the higher interest rates in emerging economies.

⁶ This term was attributed to Antoine Van Agtmael of the World Bank's International Finance Corporation in 1981.

the Thai baht, so that by August, Indonesia, Malaysia and the Philippines, faced with economic conditions similar to Thailand's and all of whose currencies were similarly pegged to float within a narrow band against the US dollar, experienced severe devaluations (Whitt, 1999, p. 19).⁷ Even the so-called "strong economies" – Hong Kong, Singapore and Taiwan – were affected, although not to the same extent.⁸

Some scholars, attempting to find common ground with the GFC, argue that it was asset inflation, primarily real estate, which brought the Asian economies down (see, for instance, Collins & Senhadji, 2002; Quigley, 2001). Thus, Quigley (2001, p. 129) argued that the proximate cause of the AFC "was unchecked activity in the property market." However, given that the housing boom predated the onset of crisis for months, and was itself brought on by the large inflows of hot money with the end of the Cold War, we conclude that real estate bubbles were a part of the causative chain of events that led to crisis but not the trigger. Nevertheless, as with the build-up in current account deficits arising from the appreciation in currencies, and growing short-term debt commitments, non-performing loans arising from the housing bubble provided the explosives for the eruption (Rasiah, 1998, 2000a, 2000b).

If the proximate cause of the AFC is in dispute that of the GFC is not. It was the subprime crisis in the US in 2006, so called because subprime loans, loans to borrowers who did not meet prudential requirements for lending,⁹ defaulted on a large scale when the housing bubble in the US burst. Widespread default rendered the large pool of financial derivatives into which subprime mortgages were bundled worthless.¹⁰ Billions were wiped off the books of investors, from hedge funds to financial institutions to individuals with 401K investment plans. As financial institutions on both sides of the Atlantic were imperiled, lending froze (see, for instance, Blackburn, 2008). Stock markets declined sharply, this contraction transmitted quickly to Asia, including Southeast Asia. However, thanks to reforms instituted after the AFC, as well as the fact that not much time had passed for a fresh build-up of vulnerabilities, Southeast Asian financial sectors held. Also, apart from Singapore, the remaining Southeast Asian countries did not attract financial derivatives from the West, and hence, were not exposed to the fallen stocks.

Although events leading up to both crises were clear, the origins of each remain hotly debated. For the AFC, Montes (1998, p. 19) refers to "menageries of explanations". Broadly, they divide into factors external and factors internal to Southeast Asian countries. Those who argue that the AFC was of external origin noted the risks associated with the volatility of portfolio capital flows (Bhagwati, 1998), and

⁷ A detailed chronology of the events from the start of the AFC to mid-1998 is found in Wong (1998).

⁸ Singapore and Taiwan had also to allow their currencies to devalue, albeit more modestly, while Hong Kong, with its fixed exchange rate peg, saw its stock market savaged and interest rates soared.

⁹ Subprime refers to a credit rating below what lenders consider creditworthy (usually a FICO score of 680 and above). "FICO" is a registered trade mark of the Fair Isaac Corporation. FICO scores are calculated using a risk assessment model proprietary to that corporation. The score ranges from about 300 for poor credit risk to about 850 for the best credit risk.

¹⁰ The widespread incidence of default meant that the instruments into which subprime mortgages were bundled could no longer be sold. The "mark-to-market" accounting rule adopted after the Enron scandal of 2001 required that financial assets that could not be sold be valued as worthless.

with foreign-owned deposits and currency mismatches that were greatly enhanced by premature liberalisation of financial markets that lacked depth (Goldstein, 1998; Radelet & Sachs, 1998; Rasiah, 1998, 2000b; Singh, 1998; Stiglitz, 2007). Subsumed under this category is the set of developments outside Southeast Asia that brought huge portfolio capital inflows into Southeast Asia – the end of the Cold War, the bursting of the Japanese housing bubble, among others (Whitt, 1999). Others blamed weaknesses in the countries afflicted by the AFC – external deficits, pegged exchange rates, crony capitalism, weak regulatory mechanisms and corporate governance (Fischer, 1998; Greenspan, 1998; Huang & Xu, 1999; Johnson et al., 2000).¹¹

The debate over the causes of the GFC has a familiar ring. Asians, including Southeast Asians, blame the US, while Americans, politicians as well as academic economists, blame Asia. Those who blame America argued in terms of the refusal to regulate its financial sector, the growth of a shadow financial sector, state capture, executive compensation, even fair-value or “mark-to-market” accounting (Anderson et al., 2010; Blackburn, 2008; Johnson, 2009; Kaufmann, 2009; Whalen, 2008). To others, however, the ultimate fault lay in East Asia’s (especially China’s) current account surpluses and build-up of reserves, made possible by keeping currencies undervalued, and hence to export capital to the US that kept American interest rates low (Bernanke, 2011; CEA, 2009; Dunaway et al., 2009).

The point of the above is not to argue what the causes of the AFC and GFC are but to demonstrate that these crises arrived through a combination of factors that were as different as they were similar between one crisis and another. In terms of similarities, both crises began with the financial sector, were brought on by panic, with the government exacerbating if not precipitating the crisis, and with exchange rates playing a role. But these commonalities also embodied important differences. For instance, whereas Southeast Asian governments were accused of extensive arbitrary intervention in the AFC, the US Federal Reserve simply refused to regulate, believing that the market was self-regulating, ultimately bringing on the GFC. Further, while overvalued Southeast Asian exchange rates triggered the AFC, the region, led by China, was accused of keeping exchange rates deliberately undervalued, thus contributing to what Bernanke (2005) called a “savings glut”. The contexts for the two crises, i.e. circumstances just prior to the onset of crises, also differed. But the biggest difference lies in the fact that while the AFC began in Southeast Asia, brought about by factors both internal and external to the region, the factors that brought on the GFC were entirely external to Southeast Asia, if the much disputed global imbalances were excluded.

3. Lessons from the AFC

The impact of each crisis depended on the above factors, but also on the responses of governments to address its arrival. For the GFC, the impact depends also on the lessons learned or not learned from the AFC, a central theme of this paper. What are these lessons and what, if any, was learnt?

¹¹ Reflecting the IMF position, Fischer (1998), while acknowledging external factors, was of the view that the problems “were largely homegrown”.

Drawing Lessons. Although for each researcher the lessons to be drawn would be expected to vary with what he/she considers to be the causes of the AFC, some agreement on what needs to be done did emerge (see Rasiah, 2000b, pp. 382–387; Stiglitz, 1999, pp. 321–328; Woo, 2007, p. 2). Thus, to counteract the negative impact of the crisis and address weaknesses in Southeast Asian countries' financial sectors, the following recommendations were made:

1. To instill confidence in the financial sector, the flow of credit during crisis should be maintained at low interest rates and with stronger direction from the central bank;
2. Their regulatory framework and governance needed to be strengthened;
3. Non-performing loans must be reduced;
4. Short-term debt must be contained as well as foreign borrowing by the corporate sector monitored closely;
5. Maturity and currency mismatches must be managed prudently.

Beyond national policies, states should be “acting in concert to restructure the international environment that created the shocks and exacerbated their effects” (Akyuz, 2002, 2010; Woo, 2007, p. 18).¹² Even if this did not occur, regional agreements to which these states belong should be able to orchestrate at the minimum a coordinated response by member states. The delayed, haphazard response of Southeast Asian leaders to the AFC clearly illustrated this latter need. Indonesia's Suharto, a reluctant participant of the IMF program, made erratic policy announcements (Sharma, 2003, p. 40). Malaysia's Mahathir, in denial mode, blamed speculators, currency traders and even saw a Jewish conspiracy (Jomo, 2006, pp. 491–492; Krugman, 2009; Tan, 2000, pp. 17–18). Thailand's fragile democracy had to contend with too many vested interests to be able to mount an effective response. Instead of inspiring investor confidence, these actions had the opposite effect.

But was a regional response possible? The helplessness of ASEAN, with all its founding members afflicted by the AFC, coupled with the unreliability of assistance from advanced countries, was also a lesson Southeast Asian leaders took to heart. ASEAN simply did not have the resources to respond to a crisis of this scale, nor did it have the requisite institutional mechanisms for economic cooperation to make it happen (Harris, 2000, pp. 504–505). The increase in membership has also brought within the ASEAN fold political and economic systems of considerable diversity, making consensus, an ASEAN hallmark, difficult. As for the advanced West, the only financial assistance to the governments of Indonesia and Thailand came in the form of IMF loans, with all the conditions attached that caused early pain. Western governments, triumphant at what they believed to be the end of the “Asian model”, saw fit to lecture

¹² Greater economic cooperation did materialise in northeast Asia when the GFC arrived, suggesting this recommendation was indeed taken seriously (Heng & Lim, 2009, p. 138). The People's Bank of China established a bilateral currency swap arrangement with the Bank of Korea amounting to 180 billion yuan in December 2008, with Korea itself having completed another swap arrangement with Japan to the tune of US\$30 billion.

crisis-hit countries on the superiority of their model.¹³ And when Japan proposed an Asian rescue fund, the proposal was opposed by the US fearing that it would undermine the IMF.¹⁴

More contentious is the issue of capital controls that Malaysia alone instituted and which was roundly criticised by neo-liberalist commentators (see Kaplan & Rodrik, 2002, p. 400). This anti-control rhetoric continues to this day. An opinion piece in the *Wall Street Journal* of June 17, 2010 titled “Capital controls comeback” even ascribes to capital controls Malaysia’s inability after the AFC “to attract money back, even after lifting many of the restrictions” (online.wsj.com/article/SB10001424052748704289504575312080651475312080651478488.html). However, prominent economists have come to its defence (see, for instance, Athukorala, 2008; Kaplan & Rodrik, 2002). Indeed, Kaplan and Rodrik (2002, p. 402) went so far as to challenge the capital controls as being benign (Cheong, 2007) on the grounds that “pressure on the Malaysian currency remained high in Malaysia months after the Korean and Thai currencies had begun to appreciate.” For these latter scholars, then, the need for capital controls in the face of financial flow instability is an important lesson to learn.

Our view lies between these extremes. Clearly history has proved the naysayers wrong. But neither did it prove capital control backers right. Kaplan and Rodrik’s argument (2002, p. 402) hinged upon their assertion that Malaysian financial markets faced a crisis situation in September 1998 so that capital controls had to be imposed. In fact, the Malaysian ringgit faced none of the pressures on the Thai baht and the Indonesian rupiah at that time, in the latter case on account of race riots and the downfall of President Suharto. By the second half of the year, financial market conditions were improving all over Asia, including in Malaysia, with onshore interest rates falling. This was because Malaysia was embarking on real financial and corporate restructuring, and agencies like Danaharta and Danamodal (see below) had been established by August 1998. The spike in offshore rates was not necessarily reflective of a crisis but rather of restrictions on the supply of ringgit to the offshore market (Thillainathan, 2003, 2011). The onshore market was also many times larger than the offshore market and should have been the better measure of the country’s financial health (Annex A). Indeed, there is credibility to arguments by some scholars that the rationale for capital control lay in the political and/or political economic realm (Haggard & Low, 2000; Johnson & Mitton, 2001; Jomo, 2006; Rasiah, 2000b).¹⁵ Indeed, while the AFC hastened the collapse of governments in Indonesia (Suharto) and Thailand (Chatichai Choonhavan), it also led to the sacking of the Deputy Prime Minister in Malaysia, which also shows that economic experiments cannot be isolated from political interventions.

Government Responses. Southeast Asian governments did undertake short-term damage control while instituting financial reforms that strengthened regulatory oversight and corporate governance. Thus, Malaysia set up three bodies, Danaharta (the National Asset Management Company) to take over non-performing loans, Danamodal to recapitalise ailing banks, and the Corporate Debt Restructuring Committee to

¹⁵ Rasiah (2000b: 381) provided evidence to show that the debt rehabilitation programme was already underway before the sacking of Anwar Ibrahim on 3 September 1998, and that the focus then was on resuscitating ailing GLCs by first carrying out proper due diligence rather than simply bailing them out.

restructure corporate debt (Ito & Hashimoto, 2007, Rasiah, 2001; Thillainathan, 2003, 2011). Governance reforms to ensure strict prudential regulation and supervision of borrowing from abroad had already been put in place (Jomo, 2006, p. 495) with the result that Malaysia had a lower burden of external debt compared to its neighbours. Indonesia agreed to and implemented an IMF program of bank resolution that initially made things worse (Sharma, 2003, pp. 150–151) before taking steps to guarantee all debt, setting up a bank restructuring agency, and a framework for corporate restructuring put in place. Bank recapitalisation and steps to strengthen the prudential and regulatory framework of the banking system followed (Sharma, 2003, p. 162). Thailand likewise took short-term measures to stabilise the financial sector, including guaranteeing deposits, closure or merger of bankrupt financial institutions, and encouragement of foreign financial institutions' participation (Menkhoff & Suwanaporn, 2007, pp. 4–5). Further reforms consisted of capital market diversification through developing bond markets, promotion of specialised financial institutions and broadening access to financial services.

Both Indonesia and Thailand saw IMF supervised reforms in corporate governance that brought national practice more in line with Anglo-American norms under the presumption that any departure from these norms was undesirable (Jomo, 2001, p. 30). Malaysia, which shunned IMF assistance, nevertheless took similar steps, including tightening listing rules on the Kuala Lumpur Stock Exchange, introducing a code of corporate governance and an accreditation program for company directors. Jomo (2001, p. 32) correctly observed that while corporate governance in Southeast Asian countries did leave much to be desired, corporate failures prior to the AFC did not necessarily signal a collapsing corporate sector and a high priority for AFC reform. Additionally, as Malaysia has shown since, even with new rules in place, the power of state and state-linked enterprises has been such that the playing field remains not at all level.

In terms of fiscal and monetary policy response, many now agree with Stiglitz (1999, pp. 321–323) that countercyclical policy was needed, the opposite of what the IMF initially prescribed to combat the AFC. The plight of the population made vulnerable by the crisis also called for the erection of strong social safety nets, which either did not exist or had been progressively whittled away by market liberalisation (Stiglitz, 1999, p. 328). After an initial spell of belt-tightening, the IMF reversed course, advocating fiscal spending and lowering interest rates. Malaysia rejected IMF involvement following the introduction of capital controls on 2 September 1998 after initially undertaking measures that mirrored the IMF programs. Unlike Indonesia, Philippines and Thailand whose short-term debt commitments and current account deficits had far exceeded their international reserves when confidence crashed, Malaysia still enjoyed a positive surplus (Rasiah, 2000b). Hence, while Indonesia, Philippines and Thailand had to approach the IMF “with cap in hand”, Malaysia enjoyed the autonomy to experiment with capital controls. Also, Malaysia was lucky as most of its debt were denominated in ringgit while that of Indonesia, Philippines and Thailand were mainly in foreign currencies.

One of the most important lessons of the AFC to Southeast Asian governments is the need to be self-reliant. ASEAN had limited capability to respond to member

countries' needs during crisis,¹⁶ the West would not intervene directly, preferring to channel assistance through the IMF with conditions attached. Their response was to build up their external reserves. This build-up was helped by the buoyant exports to a booming West that only came to an end when the Tech Bubble burst in 2001.

4. Measuring Reform Impact

How well were these lessons learned? One, albeit indirect, way of answering this question is to look at the robustness of Southeast Asian economies just prior to and in coping with the onset of the GFC. A decade would have been sufficient for the impact of the above reforms to be felt. Table 1 shows financial and other indicators for four AFC-affected countries in the region in 2007 compared to 1996. Clearly there have been improvements in the financial sector. Monetary supply and private sector credit growth have been restrained, while short-term external debt has been sharply curtailed, especially in Indonesia and Thailand. Overall, then, the financial institutions in the region have become risk-averse and less debt-prone, especially with respect to short-term foreign debt, the last a major factor in bringing on the AFC in Indonesia and Thailand. Thanks also to more favourable exchange rates, current accounts in the balance of payments have also gone from deficit to surplus. Governance is another matter

Table 1. Selected indicators just before each crisis, 1997 and 2007

	Indonesia		Malaysia		Philippines		Thailand	
	1996	2007	1996	2007	1996	2007	1996	2007
M2 growth rate (%)	29.3	19.3	21.2	9.5	15.6	10.7	12.6	6.3
Private sector credit growth rate (%)	45.6	3.5	30.2	7.9	51.0	8.5	14.6	4.8
Corruption control index	-0.56	-0.78	0.51	0.28	-0.18	-0.8	-0.21	-0.33
Regulatory quality index	0.15	-0.32	0.64	0.56	0.23	-0.15	0.18	0.26
Voice & accountability index	-0.81	-0.14	0.00	-0.50	0.19	-0.11	0.39	-0.68
Short-term external debt (% of reserves)	167	27	41	22	68	21	123	25
Current account balance (% of GDP)	-3.4	2.4	-4.4	16.9	-4.8	4.8	-7.9	6.3
International reserves (months of imports)	4.5	8.0	3.4	8.8	2.9	7.0	6.0	7.6

Sources: World Bank database; ADB key economic indicators, various years.

¹⁶ Nevertheless, a modest bilateral currency swap arrangement was signed by a number of ASEAN and the Plus Three countries in Chiang Mai. This became known as the Chiang Mai Initiative (Heng and Lim, 2009, p. 174).

altogether. In the decade since the AFC began indicators for corruption, regulatory quality and voice and accountability have, with few exceptions, deteriorated, in some cases, significantly. However, the bitter experience of AFC on NPLs led the governments of Indonesia, Malaysia, Philippines and Thailand to better regulate the banks.

At the same time, recognition of the importance of self-reliance saw these countries redoubling their efforts to drive exports that contributed to the countries' rapid exit from the AFC but also the build-up of international reserves. Thus, the "global imbalances" that have occupied centre stage in the discussions of the GFC have roots in Asian (including Southeast Asian) governments' response to the AFC. The need for coordination also saw the birth of a number of bilateral currency swap arrangements that involved ASEAN together with China, Japan and Korea and became known as the Chiang Mai Initiative (see, for example, Henning, 2009: 2). These swap arrangements would provide \$120 billion of foreign exchange reserves that Southeast Asian countries in distress could draw upon.¹⁷

Greater economic robustness led to more resilience against the impact of the GFC. Table 2 confirms this for both the real and financial sectors. The GFC did bring about negative GDP growth in Malaysia and Thailand, but not in the Philippines and Indonesia. Indeed, Indonesia, the worst hit in the AFC, recorded the highest growth among the four countries in 2009, a respectable 4.6%. Fairly decoupled from multinational value chains that originated from the West, the collapse in export demand faced by Malaysia and Thailand did not affect much Indonesian exports. Rapid action by way of fiscal stimulus also helped, although the size of stimulus varied across countries depending on perceived vulnerability and fiscal space (Doraisami, 2011). Thus, Malaysia, the most open and therefore the most vulnerable among the crisis affected countries, announced the largest stimulus package in relation to GDP that also resulted in the largest fiscal deficit (Doraisami, 2011, p. 6).

Lower export growth first from the freezing of trade credit (Mora & Powers, 2009) and eventually reduced demand from the US and Europe was the main transmission channel, as seen by the sharp drop in exports in 2009 (Table 2). But imports also shrank, leaving the current account balance in positive territory in all four countries between 2008 and 2011. The downward adjustment in imports can be partially explained by these countries' participation in global supply chains, reflected in a high import content of exports. That exports rebounded strongly in 2010 for all four countries was in no small measure the result of continued strong demand from China, which had become a leading destination for these countries' exports (Table 4).

Also, unlike in the AFC, the financial sector held up very well. Non-performing loans remained very modest throughout the period, while money supply growth had been held relatively in check. Private sector credit as a share of GDP has also been reduced from AFC levels, although it remained much higher in Malaysia and Thailand compared to Indonesia and the Philippines. Financial reforms after the AFC have undoubtedly built stronger financial sectors; that with the exception of Singapore, Southeast Asian financial institutions did not hold any toxic assets that sank American and European banks helped.

¹⁷ The Initiative was launched at a meeting of ASEAN+3 finance ministers in Chiang Mai in May 2000.

Table 2. Selected indicators during and immediately after the AFC and GFC

Country and indicator	AFC				GFC			
	1997	1998	1999	2000	2008	2009	2010	2011
<i>Indonesia</i>								
GDP growth rate	4.7	-13.1	0.8	4.9	6.0	4.6	6.2	6.5
NPL as % of total loans				34.4	3.2	3.3	2.6	2.9
Money supply (M2) growth (%)	23.2	62.3	11.9	14.3	14.9	13.0	15.4	16.4
Private sector credit (% GDP)	59.6	59.9	62.1	60.7	36.8	37.0	36.5	38.5
Budgetary balance (% GDP)	0.5	-1.7	-2.5	-1.1	-0.1	-1.6	-0.7	-1.2
Export growth rate	7.3	-8.6	-0.4	27.7	20.1	-15.0	35.4	29.0
Current account balance (% GDP)	-2.3	4.3	4.1	4.8	0.0	1.9	0.9	0.2
<i>Malaysia</i>								
GDP growth rate	7.3	-7.4	6.1	8.9	4.8	-1.6	7.2	5.1
NPL as % of total loans				15.4	4.8	3.6	3.4	2.9
Money supply (M3) growth (%)	18.5	2.7	8.6	5.1	11.9	9.2	7.0	14.4
Private sector credit (% GDP)	163.4	162.1	150.1	138.4	115.0	137.4	132.2	132.1
Budgetary balance (% GDP)	2.4	-1.8	-3.2	-5.5	-4.6	-6.7	-5.4	-4.8
Export growth rate	12.1	29.7	12.2	16.1	9.7	-16.7	21.6	8.6
Current account balance (% GDP)	-5.9	13.2	15.9	9.0	17.1	15.8	11.1	11.1
<i>Philippines</i>								
GDP growth rate	5.2	-0.6	3.1	4.4	4.2	1.1	7.6	3.7
NPL as % of total loans				24.0	4.5	4.1	3.8	-
Money supply (M2) growth (%)	20.5	8.0	19.3	4.8	15.4	7.7	10.7	6.5
Private sector credit (% of GDP)	78.5	63.3	58.9	58.3	47.4	48.7	49.2	51.8
Budgetary balance (% GDP)	0.1	-1.7	-3.4	-3.7	-0.9	-3.7	-3.5	-2.0
Export growth rate	22.8	16.9	18.8	8.7	-2.8	-21.7	34.0	-6.7
Current account balance (% GDP)	-5.3	2.4	-3.5	-2.7	2.1	5.6	4.5	3.1
<i>Thailand</i>								
GDP growth rate	-1.4	-10.5	4.4	4.8	2.5	-2.3	7.8	0.1
NPL as % of total loans				17.7	5.7	5.3	3.9	3.5
Money supply (M2) growth (%)	16.4	9.5	2.1	3.7	9.2	6.8	10.9	15.2
Private sector credit (% GDP)	177.6	176.7	155.8	138.3	130.5	137.0	135.5	150.8
Budgetary balance (% GDP)	-2.2	-7.0	-9.6	-2.8	-0.6	-3.9	-2.4	-1.8
Export growth rate	29.8	21.9	-1.4	27.0	10.4	-11.2	18.9	11.7
Current account balance (% GDP)	-2.1	12.6	9.9	7.4	0.7	7.8	3.9	3.2

Sources: World Bank database; ADB key economic indicators, various years.

The area where the impact of the GFC was most severe (in terms of relative decline), and almost immediately felt, was in the Southeast Asian stock markets. Table 3 shows this impact to be as severe in 2008 as it was in 1997, but the rebound was also much stronger and more rapid. Yoshida (2010, p. 2) argued that this more rapid rebound was on account of the same factors underlying the better real sector performance – the expanded role of China and a rapid and coordinated countercyclical response. These factors, combined with the fact that there really was nowhere else

Table 3. Equity indices during the AFC and GFC (% change)

	Indonesia	Malaysia	Philippines	Thailand
1996	16.4	24.1	13.1	-41.1
1997	-73.6	-72.9	-61.6	-78.8
1998	-28.1	-2.9	9.2	34.3
1999	95.1	44.5	0.9	43.3
2007	49.3	44.6	36.0	39.4
2008	-61.1	-43.7	-53.7	-50.5
2009	130.1	46.7	41.9	72.8
2010	37.9	36.1	11.3	62.1

Source: World Bank database.

equity capital could flee safely (to) helped to engineer this rebound. The fact that financial collapse did not lead to economic collapse in 2008 should be a reminder that there is no inevitability of one leading to the other.

This divergence between the stock markets and the rest of the economy has also fueled the on-and-off debate about decoupling (see, for instance, *Economist*, 2008; Willett et al., 2011).¹⁸ It is not our purpose here to contribute to this debate. For Southeast Asia, what is evident is that reforms since the AFC have helped insulate the real and financial sectors from the stock markets. This insulation has remained, even after the outbreak of the pandemic crisis.

5. GFC's Impact: Did Lessons Matter?

The above discussion suggests that implementing reforms, better developed financial markets, and less asset liability mismatches had strengthened Southeast Asian economies, rendering them more robust before and during the GFC. While prudential regulation has strengthened financial institutions, current account surpluses have permitted the build-up of international reserves as defences against crisis.¹⁹ Exchange rates have also been managed with a bias towards undervaluation rather than reliance on a peg against a basket of major foreign currencies. The build-up of external reserves coupled with reduced external borrowing has bought Southeast Asian government considerable policy space, permitting the use of significant economic stimulus packages.²⁰ ASEAN has also pragmatically sought help from China, Japan and

¹⁸ Kim et al. (2009), in arguing in favour of "recoupling", noted that its nature has changed – from a relationship that was uni-directional (the West affecting Asia) to bi-directional (Asia also affecting the West).

¹⁹ Some of these reserves have been invested in foreign equity and bonds denominated in the issuing countries' currencies. This meant Southeast Asian countries were no longer exposed to foreign exchange risks, leaving them free to cut interest rates to combat recession (*Economist*, 2012). This was in contrast to the AFC when heavy foreign borrowing rendered both devaluation and defending exchange rates costly.

²⁰ For instance, they no longer had the Hobson's choice of defending their exchange rates at the cost of hiking domestic interest rates (as Hong Kong did), or permitting exchange rates to depreciate, at the cost of more expensive imports.

Korea to help fund the Chiang Mai Initiative of bilateral swap arrangements. Thus, at least domestically, Southeast Asian countries have seen changes for the better in the form of stronger “fundamentals” that helped mitigate the impact of the GFC. And regionally, ASEAN has taken steps to give it more space, and hence, a greater role in crisis management. That the GFC arrived around a decade after the AFC also meant that lessons learned were fresh in the minds of policy-makers while, as already mentioned, not enough time had elapsed for vulnerabilities to build up.

However, given its openness, how well Southeast Asia performed in the GFC depended on the external as much as the domestic and regional environment, which has also undergone major change. First, unlike in the AFC, the US and Europe no longer experienced an economic boom but were where the GFC began (the US) and spread and continued to rumble (Europe). As a result, the transmission mechanism was not only through the financial markets but also through reduced exports. Southeast Asia at the heart of global supply chains could no longer export its way (to the West) out of trouble. Unlike the AFC in which it was argued that global supply chains cushioned its negative impact (Lee & Tham, 2007; Obashi, 2009; Rasiah, 1998, 2000b), the GFC impacted these networks (Weitzman, 2010). In any case, the US’ growing trade deficit with Asia has led to calls by its politicians to retaliate against Asian exporters.²¹ At the same time, the US deficits were financed largely by Asia, principally China and Japan.

Second, the pattern of trade has also been shifting, with greater intra-Asian trade for all Asian countries, including those in Southeast Asia. At the centre of this trade is China, which has, by 2008, overtaken the US in trade with ASEAN (Table 4),²² which has become a major destination for Southeast Asian supply chains. Exports to China have also been driven by China’s demand for machinery and equipment as well as energy products and raw materials to fuel its growth. However, China exports more and more to destinations outside Asia, overtaking Germany to be the world’s top exporter in 2009 (WTO, 2010: Appendix Table 1). The country continues to be the top destination for foreign direct investment.

Table 4. Exports to China and level of international reserves, four Southeast Asian countries, 2008 and 2011

Country	Share of exports to China (%)		International reserves (months of imports)	
	2008	2011	2008	2011
Indonesia	8.5 (4) ^a	11.3 (2)	4	6
Malaysia	9.5 (4)	17.9 (1)	6	7
Philippines	11.1 (2)	21.2 (1)	6	11
Thailand	9.1 (3)	12.0 (1)	6	9 (2010)

Note: ^a Rank based on the value of exports according to export destination.

Sources: World Bank database; ADB key economic indicators, various years.

²¹ This rhetoric, directed particularly at China, became particularly shrill during the US Presidential election campaign of 2008.

²² Between 2000 and 2008, ASEAN’s trade with China grew six times, compared with just under two times with Japan, and one and a half times with the USA (ASEAN, 2009: Table V.12)

These developments effectively means that a significant shift took place in the economic centre of gravity from West to East in the space of a decade.²³ For Southeast Asia, the economic wellbeing of China was fast becoming as crucial as the US and the EU. This well-being has been helped by the fact that China was relatively unscathed by the AFC, and although it was adversely affected by the GFC because of its heightened exposure to trade with the West, it had built up robust international reserves it could and did deploy to cushion its economy from the shocks generated (see for instance, Tanaka, 2011). Within Southeast Asia, the early movers, Malaysia and Thailand, have begun to lose momentum, while Indonesia, long the underachiever, and Vietnam, which started liberalising its economy since 1986, are beginning to set the economic pace, although the latter's reliance on credit expansion to drive growth has dented its long-term growth prospects.²⁴ Cambodia, recovering from its traumatic experience of the Pol Pot regime and isolation for a decade after that, has recorded robust growth since the beginning of the new millennium. These changed circumstances have meant a reordering in the structure of growth within the region. The GFC merely exposed the greater vulnerability of highly open economies to such shocks.²⁵

A final point to note, although no longer centrally related to whether Southeast Asia learned lessons from the AFC, is the question of capital controls. As earlier indicated, these controls were implemented by only Malaysia, and only in response to the AFC. When the GFC arrived, no Southeast Asian country, not even Malaysia, saw a need to impose capital controls even when the stock markets faced a huge collapse.²⁶ Beyond Southeast Asia, however, this instrument has moved from economic heresy to mainstream. Even the IMF, which opposed its use in 1997, has, through a policy paper (Ostry et al., 2010), conceded that capital controls could, in particular situations, be appropriate. These situations could include currency attacks, large inflows of short-term capital, loss of monetary autonomy, and asset bubbles, which ironically, together affected Indonesia, Malaysia, Philippines and Thailand during the AFC. This change of heart has been brought about by positive results in economies like Brazil and Taiwan (Gallagher, 2011) coupled with increasingly pessimistic views of the benefits of capital account liberalisation (e.g. Bhagwati, 1998; Ocampo et al., 2008). That China and India, both still having in place capital control instruments, rode out both the AFC and GFC extremely well must have also been a lesson learnt. However, cheerleaders for the Malaysian capital control (e.g. Tourres, 2003) should not rush to celebrate; the capital controls that have been encouraged since the ringgit has fallen sharply from July 2023 till March 2024, should refer to capital inflows rather than capital outflows as the latter affects investor confidence.²⁷

²³ This is recognised in the US, as seen from the National Intelligence Council's Global Trends 2025 (2008).

²⁴ The Global Manufacturing Competitiveness Index 2013 (Deloitte Touche Tomatsu & Council on Competitiveness, 2012) shows Indonesia and Vietnam rising 6 and 8 spots to rank 11 and 10 respectively, above Malaysia, whose rank fell from 13 to 14.

²⁵ World Bank data showed Indonesian exports to be 30% of its GDP in 2008, compared to 103% for Malaysia and 76% for Thailand.

²⁶ Indonesia did place quantitative limits or minimum stay requirements to limit short-term external borrowing to 30% of capital and also introduced a one-month minimum holding period for central bank money market certificates in 2010 (Massa, 2011, p. 1).

²⁷ This was introduced by the government of Chile in the early 1990s (Agosin & Ffrench-Davis, 1998).

6. Conclusion

A comparison between the AFC and GFC reveals both similarities and contrasts. Some of these similarities result from circumstances, for instance, both crises began in the financial sector, while others were structural, for example, the openness of the economy and natural resource endowment for each country which did not change between crises. Indonesia, Malaysia, Philippines and Thailand responded initially to the AFC in the same way by raising interest rates and collateral requirements for loans. Malaysia took a different path when it introduced capital controls in September 1998. In the end interest rates in all the crisis-affected countries in East and Southeast Asia had already started to fall in 1998. The modest role played by ASEAN was another common circumstance, although in the GFC, ASEAN did play a coordinative role. The sharp fall in output followed by rapid recovery is also the product of circumstance – continued economic boom in the West that allowed Southeast Asia to export its way out of crisis and strong demand from a fiscally stimulated China doing the same. And for all the talk about the need for revamping the international financial architecture, nothing really had changed between the two crises.

But circumstances also played a major role in differentiating the two crises. The most obvious contrast is the different locations where these crises began, as well as their coverage – the AFC did not spread beyond East and Southeast Asia while the GFC generated a global crisis. This meant, for instance, that global production networks that helped cushion the impact of the AFC on Southeast Asia were themselves severely impacted by the GFC. No less important is the shift in economic power to Asia that was accelerated by the GFC. Indeed, a major reflection of this shift has been the growing intra-Asian trade among Southeast Asian countries. Also different was the way each crisis was transmitted, the AFC from the financial sector to the real, and the GFC primarily through the real sector via exports. These differential circumstances meant that the less globalised and more resource-rich Indonesia held up much better than its neighbours during the GFC.

Although the fact that the GFC occurred barely a decade after the AFC meant that vulnerabilities had not built up to pose new risks, some credit for the differentiated impact of the AFC and GFC must go to the reforms undertaken by governments badly afflicted by the AFC. These reforms – greater prudential regulation combined with financial deepening – have produced much more robust financial sectors, while more cautious management of exchange rates have preempted the kind of speculative attacks that launched the AFC. Greater leeway in crisis management has also been given Southeast Asian governments the change of heart over capital controls. Thus, the question as to whether lessons have been learned in Southeast Asia must be answered in the affirmative. Also, any attempt to revisit past crises or to construct viable mechanisms to prevent future crises from happening will require, *inter alia*, a political economic assessment.

Does it follow that this time is different? It is possible to conclude that this time is indeed different, but not different enough. In fact, Krugman (2009) argued that the causes were identical. Given the openness of the Southeast Asian economies, there is simply no way for them to insulate themselves from major external shocks, no matter how well past lessons are learned. As the GFC shows, the best that they can hope for is preparedness, in the form of sound fundamentals, for the inevitable next time.

References[#]

- Anderson, S., Collins, C., Pizzigati, S., & Shih, K. (2010, September 1). *CEO pay and the Great Recession*. Institute for Policy Studies, Washington DC. <https://ips-dc.org/wp-content/uploads/2010/09/EE-2010-web.pdf>
- Akyuz, Y. (2002). Crisis management and burden sharing. In Y. Akyuz (Ed.), *Reforming the global financial architecture: Issues and proposals* (pp. 117–156). Zed Books.
- Akyuz, Y. (2010). *Why the IMF and the international monetary system require more than cosmetic reform* (Research Paper No. 32, November). South Centre, Geneva. https://www.southcentre.int/wp-content/uploads/2013/05/RP32_-Why-the-IMF-and-IMS-need-more-than-cosmetic-reform_EN.pdf
- Akyuz, Y., & Cornford, A. (1999). *Capital flows to developing countries and the reform of the international financial system* (UNCTAD Discussion Papers, No. 143). United Nations Conference for Trade and Development.
- Agosin, M., & Ffrench-Davis, R. (1998). *Managing capital controls in Chile*. Paper presented at the Expert Group meeting “What have we Learned One Year into the Financial crisis in Emerging Market Economies?” 21–23 July. <http://www.un.org/esa/policy/pastmeetings/ffrench.pdf>
- ASEAN. (2009). *ASEAN Statistical Yearbook 2008*. ASEAN Secretariat.
- Athukorala, P. (2008). The Malaysian capital controls: A success story? *Asian Economic Papers*, 7(1), 31–74. <https://doi.org/10.1162/asep.2008.7.1.31>
- Bernanke, B.R. (2005, March 10). *The global saving glut and the U.S. current account deficit*. Speech at the Sandridge Lecture, Virginia Association of Economics, Richmond, Virginia. <https://www.federalreserve.gov/boarddocs/speeches/2005/200503102/default.htm>
- Bernanke, B.R. (2011, February 18). *Global imbalances: Links to economic and financial stability*. Speech at the Banque de France Financial Stability Review Launch Event, Paris. <https://www.federalreserve.gov/newsevents/speech/bernanke20110218a.htm>
- Bhagwati, J. (1998). The capital myth: The difference between trade in widgets and dollars. *Foreign Affairs, May/June*, 77(3).
- Blackburn, R. (2008). The subprime crisis. *New Left Review*, 50, 63–106.
- Cheong, K.C. (2007). The return of Soros: Revisiting Malaysian ‘facts’ about the Asian crisis. *Malaysian Journal of Economic Studies*, 44(2), 107–115.
- Collins, C., & Senhadji, A. (2002). *Lending booms, real estate bubbles and the Asian crisis* (IMF Working Paper WP/02/20). <https://www.imf.org/external/pubs/ft/wp/2002/wp0220.pdf>
- Council of Economic Advisors (CEA). (2009, January). *Economic Report of the President 2009*. US Government Printing Office.
- Deloitte Touche Tomatsu and Council on Competitiveness. (2012). *Global Manufacturing Competitiveness Index 2013*, New York, November.
- Doraisami, A. (2011). *The global financial crisis: Countercyclical fiscal policy and challenges in Malaysia, Indonesia, the Philippines and Singapore* (Working Paper no. 288). ADB Institute. <http://www.adbi.org/workingpaper/2011/06/06/4581.gfc.countercyclical.fiscal.policy.issues.challenges/>
- Dunaway, S., Leigh L., & Li, X. (2009). How robust are estimates of equilibrium real exchange rates: The case of China. *Pacific Economic Review*, 14(3), 361–375. <https://doi.org/10.1111/j.1468-0106.2009.00455.x>
- Dunn, M.H. (2001). The Asian financial crisis – causes and consequences: A critical comment on the current debate. In R. Eisen (Ed.), *Supranational cooperation and integration: Goods and services vs. information* (pp. 29–44). Peter Lang.
- Economist*. (2008, March 6). *The decoupling debate*. <https://www.economist.com/finance-and-economics/2008/03/06/the-decoupling-debate>

- Economist*. (2012, November 10). *Asia's great moderation*. <http://www.economist.com/news/finance-and-economics/21565978-some-worlds-stablest-economies-are-asian-time-worry-asias-great>
- Eichengreen, B. (2007, July 31). *The Asian crisis after ten years*. Keynote address to the Claremont-Bologna-Singapore Center for Applied and Policy Economics, International Economic Policy Forum on Capital Flows, Financial Markets and Economic Integration in Asia. https://eml.berkeley.edu/~eichengr/sing_keynote.pdf
- Fischer, S. (1998, January 22). *The Asian crisis: A view from the IMF*. Address at the Midwinter Conference of the Bankers' Association for Foreign Trade, Washington DC. <http://www.imf.org/external/np/speeches/1998/012298.htm>
- Gallagher, K. (2011). *Regaining control? Capital controls and the global financial crisis* (Working Paper 250). Political Economy Research Institute, University of Massachusetts Amherst.
- Goldstein, M. (1998). *The Asian financial crisis: Causes, cures and systemic implications*. Petersen Institute for International Economics.
- Greenspan, A. (1998, March 3). *The current Asian crisis* (Testimony before the Subcommittee on Foreign Operations of the Committee on Appropriations, U.S. Senate). Federal Reserve Board. <http://www.federalreserve.gov/boarddocs/testimony/1998/199803032.htm>
- Haggard, S., & Low, L. (2000). *The political economy of Malaysian capital controls*. University of California San Diego. <http://www-irps.ucsd.edu/faculty/shaggard/Malaysia.13a.doc.html>
- Harris, S. (2000). Asian multilateral institutions and their response to the Asian economic crisis: The regional and global implications. *The Pacific Review*, 13(3), 495–516. <https://doi.org/10.1080/09512740050147979>
- Heidrick & Struggles. (2007). *The Asian financial crisis – ten years on*. Heidrick & Struggles Hong Kong Ltd. <https://www.heidrick.com/en/offices/hong-kong>
- Henning, C.R. (2009). *The future of the Chiang Mai Initiative: An Asian Monetary Fund?* (Policy Brief No. PB09-5). Peterson Institute for International Economics. <https://ideas.repec.org/p/iie/pbrief/pb09-5.html>
- Heng, M.H.S., & Lim, T.W. (2009). *Destructive creativity of Wall Street and the East Asian response*. World Scientific.
- Huang, H., & Xu, C. (1999). East Asia: Miracle or bubble? Financial institutions and the financial crisis in East Asia. *European Economic Review*, 43(4–6), 903–914. [https://doi.org/10.1016/S0014-2921\(98\)00103-2](https://doi.org/10.1016/S0014-2921(98)00103-2)
- Ito, T., & Hashimoto, Y. (2007). *Bank restructuring in Asia: Crisis management in the aftermath of the Asian financial crisis and prospects for crisis prevention – Malaysia* (RIETI Discussion Paper 07-E-039). Research Institute of Economy, Trade and Industry, Tokyo. https://www.researchgate.net/publication/5020648_Bank_Restructuring_in_Asia_Crisis_management_in_the_aftermath_of_the_Asian_financial_crisis_and_prospects_for_crisis_prevention_-Malaysia
- Johnson, S., Boone, P., Breach, A., & Friedman, E. (2000). Corporate governance in the Asian financial crisis. *Journal of Financial Economics*, 58(1–2), 141–186. [https://doi.org/10.1016/S0304-405X\(00\)00069-6](https://doi.org/10.1016/S0304-405X(00)00069-6)
- Johnson, S., & Mitton, T. (2001). *Cronyism and capital controls: Evidence from Malaysia* (NBER Working Paper No. 8521). National Bureau of Economic Research. <https://doi.org/10.3386/w8521>
- Johnson, Simon (2009, May). The quiet coup. *The Atlantic*. <https://www.theatlantic.com/magazine/archive/2009/05/the-quiet-coup/307364/>
- Jomo, K.S. (2001). *Growth after the Asian crisis: What remains of the East Asian model?* (G-24 Working Paper Discussion Paper No. 10). UNCTAD and Center for International Development, Harvard University.
- Jomo, K.S. (2006). Pathways through financial crisis: Malaysia. *Global Governance*, 12(4), 489–505.

- Kaplan, E., & Rodrik, D. (2002). Did the Malaysian capital controls work? In S. Edwards & J.A. Frankel (Eds.), *Preventing currency crises in emerging markets* (pp. 393–431). University of Chicago Press.
- Kaufmann, D. (2009, January 27). Corruption and the global financial crisis. *Forbes*. http://www.forbes.com/2009/01/27/corruption-financial-crisis-businesscorruption09_0127corruption.html
- Keynes, J.M. (1936). *The general theory of employment, interest, and money*. PalgraveMacmillan. <https://doi.org/10.1007/978-3-319-70344-2>
- Kim, S., Lee, J.W., & Park, C.Y. (2009). *Emerging Asia: Decoupling or recoupling* (ADB Working Paper no. 31). Asian Development Bank. <https://www.adb.org/publications/emerging-asia-decoupling-or-recoupling>
- Krugman, P. (2009). *The return of depression economics and the crisis of 2008*. W.W. Norton.
- Lee, P.P., & Tham, S.Y. (2007). Malaysia ten years after the Asian crisis. *Asian Survey*, 47(6), 915–929. <https://doi.org/10.1525/as.2007.47.6.915>
- Lim, M.H., & Lim, C. (2010). Nowhere to hide: The great financial crisis and challenges for Asia. Institute of Southeast Asian Studies.
- Lucas, R.E. (2003). Macroeconomic priorities. *American Economic Review*, 93(1), 1–14. <https://doi.org/10.1257/000282803321455133>
- Massa, I. (2011, March 11). *Capital controls in a global economy: In search of a coordinated truce*. Opinion 150, Overseas Development Institute. <https://odi.org/en/insights/capital-controls-in-a-global-economy-in-search-of-a-coordinated-truce/>
- Menkhoff, L., & Suwanaporn, C. (2007). 10 years after the crisis: Thailand's financial system reform. *Journal of Asian Economies*, 18(1), 4–20. <https://doi.org/10.1016/j.asieco.2006.12.002>
- Montes, M.F. (1998). *The currency crisis in South East Asia*. Institute of South East Asian Studies.
- Mora, J., & Powers, W.H. (2009, November 27). *Decline and gradual recovery of global trade financing: US and global perspectives*. VOX. <https://cepr.org/voxeu/columns/decline-and-gradual-recovery-global-trade-financing-us-and-global-perspectives>
- National Intelligence Council (US). (2008). *Global trends 2025: A transformed world*. US Government Printing Office.
- Obashi, A. (2009). *Resiliency of production networks in Asia: Evidence from the Asian crisis* (ERIA Discussion Paper 2009-21). Economic Research Institute for ASEAN and East Asia.
- Ocampo, J.A., Spiegel, S., & Stiglitz, J.E. (2008). Capital market liberalization and development. In J.A. Ocampo & J.E. Stiglitz (Eds.), *Capital market liberalization and development*. Oxford University Press.
- Ostry, J.D., Ghosh, A.R., Habermeier, K., Chamon, M., Qureshi, M.S., & Reinhardt, D.B.S. (2010, February 19). *Capital inflows: The role of controls* (Staff Position Note SPN/10/04). IMF.
- Park, C.-Y., Lee, J., Villafuerte, J., & Rosenkranz, P. (2017). *20 years after the Asian financial crisis: Lessons learned and new challenges* (No. 85 ADB Briefs, Sept 2017). <https://doi.org/10.22617/BRF179036-2>
- Pringle, R. (2012). *The money trap: Escaping the grip of global finance*. Palgrave MacMillan.
- Quigley, J.M. (2001). Real estate and the Asian crisis. *Journal of Housing Economics*, 10(2), 129–161. <https://doi.org/10.1006/jhec.2001.0284>
- Radelet, S., & Sachs, J. (1998). *The onset of the East Asian financial crisis* (NBER Working Paper No. 6680). National Bureau of Economic Research. <https://doi.org/10.3386/w6680>
- Rajan, R. (2011, March 9). Will next time be different? *Project Syndicate*. <http://www.project-syndicate.org/commentary/rajan15/English>
- Rasiah, R. (1998). The Malaysian financial crisis: Capital expansion, cronyism and contraction. *Journal of the Asia Pacific Economy*, 3(3), 358–378. <https://doi.org/10.1080/13547869808724657>

- Rasiah, R. (2000a). *From dragons to dwarfs: Reexamining neo-liberal explanations of the Southeast Asian financial crisis* (Development Research series, Working Paper No. 84). Research Center on Development and International Relations, Aalborg University.
- Rasiah, R. (2000b). International portfolio equity flows and the financial crisis in Malaysia. *Journal of Contemporary Asia*, 30(3), 369–401. <https://doi.org/10.1080/00472330080000281>
- Rasiah, R. (2001). Malaysia's recovery from the burst bubble. In A. Chowdhury & I. Islam (Eds.), *Beyond the Asian crisis: Pathways to sustainable growth*. Edward Elgar. <https://doi.org/10.4337/9781781009901.00014>
- Reinhart, C.M., & Rogoff, K.S. (2009). The aftermath of financial crises. *American Economic Review*, 99(2), 466–472. <https://doi.org/10.1257/aer.99.2.466>
- Sharma, S.D. (2003). *The Asian financial crisis: Crisis, reform and recovery*. Manchester University Press.
- Singh, A. (1998). 'Asian capitalism' and the financial crisis (Centre for Economic Policy Analysis Working Paper No. 10). New School for Social Research.
- Speller, W., Thwaites, G., & Wright, M. (2011). *The future of international capital flows* (Financial Stability Paper no. 12). Bank of England.
- Stiglitz, J.E. (1999). Lessons from East Asia. *Journal of Policy Modeling*, 21(3), 311–330. [https://doi.org/10.1016/S0161-8938\(99\)00005-8](https://doi.org/10.1016/S0161-8938(99)00005-8)
- Stiglitz, J.E. (2004). Capital-market liberalization, globalization and the IMF. *Oxford Review of Economic Policy*, 20(1), 57–71.
- Stiglitz, J.E. (2007, July 1). The Asian crisis ten years after. *Project Syndicate*. www.project-syndicate.org/commentary/stiglitz89/English
- Tan, G. (2000). *The Asian currency crisis*, Times Academic Press.
- Tanaka, K. (2011). *China's ties with Southeast Asia: From green shoots to sustained recovery* (ERIA Policy Brief No. 2011-02). Economic Research Institute for ASEAN and East Asia. <https://www.eria.org/ERIA-PB-2011-02.pdf>
- Thillainathan, R. (2003, December 10). *The off-shore ringgit market & the new regime of exchange control – A reassessment*. Paper presented at the MIER Outlook Conference in Kuala Lumpur. https://www.researchgate.net/profile/Thillainathan-Ramasamy/publication/352152589_031204_Offshore_Ringgit_Market_Malaysia's_1998_Regime_of_Capital_Control_An_Assessment/links/60bb5f61a6fdcc22eadabc59/031204-Offshore-Ringgit-Market-Malaysia's-1998-Regime-of-Capital-Control-An-Assessment
- Thillainathan, R. (2011, November 24). *Malaysia's experience with the Asian & global financial crisis – The lessons to be drawn*. Paper presented at the Federation of ASEAN Economic Associations Conference.
- Tourres, M.A. (2003). *The tragedy that didn't happen: Malaysia's crisis management and capital controls*. Institute of Strategic and International Studies Malaysia.
- UNCTAD. (1996). *Trade and Development Report, 1996*. United Nations Conference for Trade and Development.
- Wade, R. (1998). The Asian crisis and western triumphalism. *Japan Policy Research Institute (JPRI) Critique* 5(5), June.
- Weitzman, H. (2010, August 1). Supply chain woes threaten global recovery. *Financial Times*. <http://www.ft.com/intl/cms/s/0/ad74a928-9d92-11df-a37c-00144feab49a.html#axzz25VkByDvn>
- Whalen, R.C. (2008, March 1). *The subprime crisis: Cause, effect and consequences* (Networks Financial Institute Policy Brief 2008-PB-04). University of Arizona, Indiana State University. <https://doi.org/10.2139/ssrn.1113888>
- Whitt, J. (1999). The role of external shocks in the Asian financial crisis. *Federal Reserve Bank of Atlanta Economic Review, Second Quarter*, 18–31. https://www.atlantafed.org/-/media/documents/research/publications/economic-review/1999/q2/vol84no2_whitt.pdf

- Willett, T.D., Liang, P., & Zhang, N. (2011). Global contagion and the decoupling debate. In Y.W. Cheung, V. Kakkar, & G. Ma (Eds.), *Frontiers of economics and globalization, vol. 9 – The evolving role of Asia in global finance* (pp. 215–234). Emerald Publishing. [https://doi.org/10.1108/S1574-8715\(2011\)0000009014](https://doi.org/10.1108/S1574-8715(2011)0000009014)
- Wong K.Y. (Ed.) (1998). *The Asian crisis: What has happened and why?* University of Washington, Seattle.
- Woo, W.T. (2007). Coping with accelerated capital flows from the globalisation of financial markets. *ASEAN Economic Bulletin* (August, 2000); reprinted in H. Singer, N. Hatti, & R. Tandon (Eds.), *Political economy of international monetary interdependence* (7 parts-set). B R Pub, Delhi, India.
- World Trade Organization (WTO). (2010, March 26). *International trade statistics 2010: Trade to expand by 9.5% in 2010 after a dismal 2009, WTO reports*. Press Release 598. https://www.wto.org/english/news_e/pres10_e/pr598_e.htm
- Yoshida, Y. (2010). *Is this time different for Asia? Evidence from stock markets* (Discussion Paper no. 40). Faculty of Economics, Kyushu Sangyo University. https://www.researchgate.net/publication/46452437_Is_this_time_different_for_Asia_Evidence_from_stock_Markets
- Yuen, P.M., & Wee, L.E. (2006). *The Asian financial crisis ten years on: What has changed and what have we learned?* MAS-ESS Essay Competition. www.mas.gov.sg/.../ESSMASEssayComp_06_PUCategory1st.pdf

Uniform resource locators (URLs) are correct at the time of writing.

Annex 1

Estimating the Malaysian Onshore and Offshore Currency (Ringgit) Market Size

No direct estimate of the size of the onshore and offshore Malaysian ringgit market is available. However, Bank Negara Malaysia (the country's central bank), in its 1996 annual report provided the following data on the size of the non-traded related (NTR) forward exchange transactions (FET) (Table A48) and the size of the deposit base (demand together with other deposits) (Table A37). The ratio of the NTR FET to the deposit base is an estimate of the size of the offshore ringgit market relative to the domestic ringgit market. For the period 1992–1996, the ratios are:

1992	11%
1993	16%
1994	7%
1995	12%
1996	9%

The rationale for this estimate is as follows. The offshore market has no use for ringgit denominated funds over and above what is given out as ringgit-denominated loans in the offshore market; the surplus funds would be relent to the onshore market. These loans are done through the forward or swap market. The sum of transactions in these two markets is shown as NTR FET.

In using the above ratio as an estimate of the size of the offshore market, the assumption has been made that all NTR FET of the onshore banks have been contracted with offshore banks in Singapore as the counter parties. In fact, a counter party could have been non-bank institutions such as foreign fund managers with portfolio investments in Malaysia or banks based in other financial centres. To the extent that these transactions existed, the above ratios actually overstate the size of the ringgit market in Singapore.

Annual reports subsequent to 1996 did not give data on onshore banks' NTR FET. Hence no estimate of their share in Singapore in relation to the onshore ringgit market in 1997 and 1998 was possible. These were years of heavy speculation against local currencies. To prevent this, Bank Negara prohibited onshore banks from entering into forward or swap transactions with non-residents in August 1997. This was done to deny offshore speculators access to ringgit funds to prevent them from borrowing and shorting the ringgit. With this restriction, the onshore and offshore ringgit markets were decoupled. Whatever happened on the offshore market would have had no impact on the onshore market.

