An Unorthodox Approach to Deal with Economic Crisis: The Case of Malaysia

Yumiko Okamoto*

The purpose of this paper is to make a preliminary assessment of the control measures introduced in Malaysia and to examine whether exchange controls and limited capital mobility should become elements of an overall strategy of international crisis management. The case of Malaysia seems to suggest capital controls can provide temporary breathing room for dealing with balance of payments difficulties and helping to lay down the foundation for the recovery. However, this policy option may not be so easily applied to other countries with similar problems.

1. Introduction

On September 1, 1998 Malaysia surprised the world by introducing a wide range of capital controls and pegging the exchange rate at RM 3.8 per U.S. dollar. Although some of the prominent economists such as Krugman (1998) suggested temporary exchange controls as part of the solution for Asia even before the policy turn of Malaysia, the international reaction to the control measures were, more or less, skeptical.[1]

However, the worst is now past and Malaysia performed the best, at least, in the third quarter of 1999 among the countries in the region affected by the crisis, with the exception of Korea (Bank Negara Malaysia 1999:1). The purpose of this paper is to make a preliminary assessment of the control measures introduced in Malaysia and to examine

---

*Graduate School for International Development, Nagoya University, Japan

[1]See Shinohara (1998).

whether exchange controls and limited capital mobility should become elements of an overall strategy of international crisis management.

The case of Malaysia seems to suggest capital controls can provide temporary breathing room for dealing with balance of payments difficulties and helping to lay down the foundation for the recovery. It also shows, however, that the costs of holding on to the current control measures may outweigh their benefits in the long run. Besides, this policy option may not be so easily applied to other countries with similar problems.

2. Economic Crisis in Malaysia

There is growing agreement that an excessive buildup of short-term foreign debt was a proximate cause of the recent Asian crises (Rodrik and Velasco 1999:1). However, the case of Malaysia seems to indicate that it is only one side of the story. According to Table 1, the level of short-term external debt was not only very low compared with other crisis-hit countries but also was far below that of the foreign exchange reserves even in 1997. Yet, Malaysia was not able to escape the sharp contraction in output. As Table 2 shows, the growth rate of GDP fell by almost the same magnitude as Thailand in 1998, and the sharp drop in GDP was caused especially by the collapse of investment activities. As a large number of people argued, the Asian crisis was really a surprise in its depth as well as contagion.[2]

Then, an important question to ask is why output declined so severely even in Malaysia? What is the main cause of the dramatic drop in investment and output? This paper argues that there were at least three important reasons for the sharp contraction in output. First is the collapse of asset price, especially, stock market. The second is the bank-

[2]See, for example, Ito (1999:2), Berg (1999:43), Mussa and Savastano (1999: 26)

ing crisis as a result of the prior excessive risk taking activities on the part of financial institutions. The third is the unnecessary switch to tight monetary policy.

2.1 Stock market crash

The fact that Malaysia has a relatively developed stock market in Asian countries has been well publicized. According to the World Bank (1998: 34), market capitalization of listed companies as percentage of GDP is one of the highest in Malaysia among developing countries. This is partly because Malaysia has been engaged in privatization of public enterprises since as early as the mid-1980s. This indicates that what happens to the stock market has greater implications for Malaysia than other developing countries.

Analysis of the capital structure of Malaysian companies also confirms relative importance of stock market. Table 3 shows the comparison inflow of funds of the U.S. and Malaysian stock market listed companies. With respect to non-financial companies, the pattern of debt financing in Malaysia is almost the same as the U.S. pattern of total asset growth financing during the 1970 - 1979 period. The noticeable difference is between the contribution to growth from equity and the net retained earnings (Abendroth 1997: 4). The difference seems to reveal the greater relative presence of equity financing in Malaysia.

The contagion effect of the Thai devaluation affected Malaysia not only through the downward pressure on the Malaysian ringgit but also through the crash of Stock Market. As Figure 1 indicates, the stock price of Malaysia dropped into less than a half of the previous value in 1997, as the massive amount of portfolio equity funds flowed out of Malaysia. Consequently, market capitalization of the Malaysian listed companies as percentage of GDP dropped from 340 down to only 140 within a year. This implies a significant loss of wealth.

Various economic theories suggest that there are at least three mechanisms through which the crash of stock market affects output.[3] One is through wealth effects. The basic premise of Modigliani's theory tells us what determines consumption spending is the lifetime resources of consumers, not just today's income. Since an important component of consumers' lifetime resources is their financial wealth, a major component of which is common stocks, the movement of stock prices is considered to affect output via consumption spending. The dramatic drop of the auto sales in 1998 (- 54.8 percent) may imply the strong negative wealth effects in Malaysia.[4]

Tobin's *q* theory proposes that the price of stocks affects investment as well. According to the theory, if the price of stocks is high, the market value of firms becomes high relative to the replacement cost of capital. Therefore, investment spending will rise because firms can buy a lot of new investment goods with only a small issue of stock.

The *credit view* also suggests that the drop in stock prices affect investment through balance sheet channel. A decline in net worth, which raises the adverse selection problem, leads to a decreased bank lending to finance investment spending.

All of these theories imply the adverse impacts of the fall in stock prices on real output through investment and consumption. Figure 2 shows monthly percentage changes in industrial production index and the index of stock prices. As theories mentioned above suggest, industrial production activities are highly correlated with the level of stock prices.[5]

---

[3]See Mishkin (1997) as to the key monetary transmission mechanisms.

[4]The drop of the auto sales in 1998 makes a striking contrast to the prior high growth rates (22.8 percent in 1996 and 12.3 percent in 1997).

[5]The simple correlation coefficient is 0.689.

2.2 Credit crunch

Although Malaysia did not build up external debt, she shared two common weaknesses with other countries engulfed in the Asian crisis: the aggressive bank lending to the property and the share segments of the economy prior to the financial crisis, and the subsequent asset price boom-and-bust cycles.

Tables 4, and 5 show the comparison between annual growth rates of bank lending and nominal GDP, and the sectorial credit allocation of financial institutions respectively. This indicates that the asset growth of banking sector was very rapid, especially prior to the Asian crisis and the increasing share of credit was allocated mainly for the development of property, the purchase of property, stocks, and consumer durable goods. This happened despite of the narrowing interest margins. All of these pieces of evidence indicate that the quality of loan has deteriorated since 1995 and the banking sector has become very vulnerable to any appreciable slowdown in growth.[6]

Once the asset prices collapsed in the latter half of 1997 due to the loss of confidence, contagious capital flight and aggressive stock and property selling the slow down of corporate growth and subsequent piling up of the loan defaults became widespread. As Table 5 shows, the first effect was felt most in the lending to property sectors, share financing and consumer credits. By August 1998, NPL ratios increased

---

[6]Crony capitalism is often cited as a cause of the excessive bank lending and the generation of asset price boom-and-bust cycles. Although this may have some validity, the way the banking reform was carried out seems to be its major cause in Malaysia. The regulation Bank Negara Malaysia established in 1994 (a tiered financial structure) was designed to encourage the consolidation and the mergers within the banking industry. Yet, it ended up in that the more independent and smaller capitalized institutions pursued organic growth strategies independently, and that led to the excessive asset expansion of the entire banking system (Abendroth 1997:3).

sharply up to 9.4 percent for commercial banks, 17.4 percent for finance companies, and 14 percent for merchant banks (Okamoto 1999: 60). From a macro perspective, a 20 percent NPL ratio seems to be considered as a critical number, as at these levels many financial institutions are likely to record losses (Boopalan 1998: 11). Therefore, although Malaysian banks were in much better position than in Thailand and Indonesia, things deteriorated very rapidly since the collapse of the asset prices in the latter half of 1997.

Panic stricken depositors transferred their saving from local to international banks (Kok 1997: 5),[7] while the profitability of the banks was squeezed sharply due to significantly higher loan loss provisions in response to increasing NPLs. This resulted in an acute credit crunch in Malaysia (Kok 1997: 5).[8] Since Bank Negara Malaysia imposed more stringent requirements on the prudential standards governing the classification of NPL, general provision for bad and doubtful debts, and risk-weighed capital at the beginning of 1998,[9] the lending ability of the banks was further curtailed.

According to the *credit view*, the quantity of bank loans available affects output via investment through bank lending channel (Mishkin 1997: 649-650). This is particularly true for the small- and medium-size enterprises, which do not have access to working and investment capital except bank lending. Although the exact magnitude of the credit crunch is difficult to examine, Figure 3 shows the high correlation between the industrial production and the bank lending activity. The simple correlation coefficient is as high as 0.96. Therefore, it is quite probable

---

[7]According to Okamoto (1999: 60), the total amount of deposits declined in 1998 by -2.6 percent for commercial banks, -1.8 for finance companies, and -5.3 for merchant banks.

[8]This is also pointed out by Dr. Wong Yit Fan, a chief economist at Standard Chartered Bank in Singapore.

[9]See Bank Negara Malaysia (1998).

that the significant slow down in credit growth resulted in cash flow difficulties for borrowers and affected investment and output significantly in 1998 for Malaysia.

2.3 Mismanagement of stabilization policy

In late 1997 the government of Malaysia adopted a policy similar to the ones IMF requests from other nations with similar type of problems to deal with undiscerning loss of confidence, contagion capital flight, weakening stock prices and currency value, and rapid depletion of foreign reserves, although Malaysia was not receiving any financial assistance from IMF. The shift to tight monetary policy does not seem to have been desirable nor effective in Malaysia.

The principal tool in IMF stabilizations has been a temporary sharp tightening of monetary policy to support the exchange rate and to contain the inflation rates, followed by gradual loosening once confidence seems to have been restored. The IMF usually places a much higher priority on stabilizing macroeconomic and financial variables than it does on economic output. An IMF program is typically judged to be a success if the exchange rate stabilizes and inflation subdues, even if this comes at the cost of a deep recession (Bosworth 1998: 120) .

This IMF stabilization policy in response to the Asian financial crisis has been sharply criticized by a number of economists both from the points of view of its desirability and effectiveness.[10] According to them, the high interest policy may be both undesirable and ineffective for the countries in the middle of banking crises. This is partly because high interest rates have adverse effects on all firms with short-term debt, including small firms that never gambled by taking on liabilities denominated in foreign exchanges. Also because high interest rates may lead to a permanently weaker exchange rate even if they temporarily

[10] See Furman and Stiglitz (1998), Radelet and Sachs (1998), and Krugman (1999).

strengthen today's exchange, as they may increase the number of bankruptcies and lose investors' confidence further (Furman and Stiglitz 1998: 96-98).

For Asian countries other than Malaysia burdened with huge accumulated foreign short-term debt, the choice of stabilization policy is really a tough trade-off even if high interest rates strengthen today's and future exchange rate. However, for Malaysia, high interest rates were not necessary, nor ineffective in stabilizing currency and containing inflation.

As shown right at the beginning of section 2 (Table 1), unlike other Asian countries, the foreign exchange exposure of Malaysian firms and banks were very low, partly because of the government's strict supervision. On the other hand, both corporate and the banking sectors were very vulnerable to the high interest rates, because they further constrained the cash flow of corporate sectors and damaged the banking sector through increases in non-performing loans. It is very clear that a higher interest rate policy was very undesirable as a stabilization measure towards the crisis. It is apparent that Malaysian policy-makers failed to realize how vulnerable their corporate and banking sectors were to higher interest rates and the slowdown in growth by late 1997.[11] Had Malaysia handled interest rate policy differently, she might not have seen an economic crisis of this magnitude in 1998.

Moreover, at least in Malaysia, high interest policies seem to have been ineffective in stabilizing its local currency. Figures 4, and 5 show the movements between exchange rate (the value of Malaysian Ringgit per U.S. dollar), and stock prices (KLCI) and the rate of interest

---

[11]According to IMF (1999:55), early on in the regional crisis of East Asia (late 1997-early 1998), the general sentiment which the banking community, especially Bank Negara Malaysia had, was that Malaysia would weather the crisis without experiencing significant deterioration in its own situation.

rate respectively. According to Figure 4, the value of Malaysian dollar was highly correlated to the price of stock (-0.89) between June 1997 and August 1998, which indicates that foreign portfolio equity flows influences both stock and currency markets simultaneously. On the other hand, the value of Malaysian currency was not only weak related to the interest rates but also in the opposite way (Figure 5). This implies that the value of Malaysian dollar weakened despite of her shift to higher interest rate policy in the late 1997 by further dampening the confidence of foreign investors.

3. Pros and Cons for Capital Controls

On September 1, 1998 Malaysia surprised the world by shifting from an orthodox to an unorthodox approach to deal with the economic crisis. She introduced a wide range of exchange and capital control measures as well as fixing her value of currency vis-à-vis U.S. dollar. The objectives were two-fold: (1) to stabilize the asset prices (both stock and currency markets) by restricting the outflow of foreign capital, and (2) to regain the independence over the monetary policy. This paper discusses both the desirability and the effectiveness of capital controls.

3.1 The desirability of capital controls

Capital control measures are desirable if they are welfare-enhancing rather than welfare-decreasing. And that depends on the magnitude of both their benefits and costs.

A review of theoretical literature on capital controls[12] suggests that there are two arguments in favor of government intervention in capital markets. If the economy is assumed to be suffering from one distortion, it is possible to improve welfare through the introduction of another distortion (second-best arguments). A wide variety of market

[12] See, for instance, Dooley (1996), Cardoso and Goldfajn (1997), and Lopez-Mejia (1999).

failures include sticky prices in goods and labor markets, distortionary tax policies, anticipated trade reforms, and private speculation (Dooley, 1996).

A more recent argument for government intervention in international capital markets is based on the literature on multiple equilibria. If multiple equilibria are possible, the "first-best" equilibrium might be achieved through government intervention in capital markets (Cardoso and Goldfajn 1999: 6-7). Krugman (1999) argues that conventional macroeconomic remedies did not rescue the Asian countries, thus capital restrictions may have been a solution right from the beginning, using the self-fulfilling and multiple equilibria model.

However, alongside the arguments that justify the use of capital controls, there is a strong tradition that argues against it, as there are so many possible undesirable features which may accompany control measures (see Table 6). They include the possibility of retaliation by other countries, evasion, administrative costs (Cardoso and Goldfajn 1997: 9). Besides, the disruption of ordinary commerce, the generation of rent-seeking activities, the delay of necessary structural reform, the loss of means to contain irresponsible policies on the part of the imposing government, losing foreign investors are often raised as reasons for an objection to the introduction of capital controls.[13] As Cardoso and Goldfajn (1997: 9) state, whether controls are welfare-improving or not is an empirical question.

For Malaysia, there seems to be a good chance that capital controls could have been welfare-improving at least in the short run. First, by the mid-1998 it became obvious that Malaysia was in the middle of a deadly deflationary spiral: suffering from continuous capital flight, the plunge of asset prices (stock, property, and exchange rate), the wide-

[13] See, for instance, Krugman (1999), Cooper (1999), Fischer (1999a), Mishkin (1999).

spread loan defaults and the rapid deterioration in bank balance sheets. Corporate bankruptcies accompanying the slow growth, credit crunch, and high interest rates soon followed. "Within the span of one year, the financial malaise has brought even the strongest of corporates to its knees" (Yen 1998: 2). It seems that Malaysia was caught in, what Krugman (1999) calls, "the bad equilibrium."

To cut the vicious cycle, Malaysia needed to stop the outflow of capital and the further plunge of asset prices, and to help the authorities to regain control over domestic monetary conditions quickly. As Figures 6, and 7 show, Malaysia continued to suffer from the outflow of capital and the instability of exchange rate even after investors' confidence has returned to her neighboring countries such as Thailand. In Malaysia, the international reserves continued to be depleted until just before the introduction of capital controls in September 1, 1998 despite the huge current account surplus (Figure 6). This is because of the outflow of capital including portfolio equity funds. As a result, the value of Ringgit continued to depreciate after March 1998 despite some stability had come back to Thailand around that time (Figure 7). And, as we saw in Figure 5, interest rates continued to stay around 10 percent due to a liquidity shortage although the authorities wanted them to come down quickly.

To conduct a complete cost and benefit analysis may not be possible, but it can be said that Malaysia seem to have been able to introduce capital controls with a minimum cost. First, the practical difficulties may not have been so large as widely claimed (Krugman 1999). Second, the evasion was not a problem. Third, the government made it very clear that control measures were not meant to affect trade transactions nor foreign direct investment. Fourth, the government did not delay financial sector reform. The government set up "Danaharta" and "Danamodal" to improve the asset quality, liquidity and capital positions of banks, enabling them to continue financing viable businesses.

Fifth, the controls have been relaxed substantially and are now price-based.

Mishkin (1999), although recognizing that illiquidity and multiple equilibria play some role in the Asian crisis, is opposed to capital controls because the fundamental reason for the financial crisis causing sharp contractions in economic activity is not the lending expansion per se, but the excessive risk taking on the part of banking sectors. Therefore, it is claimed that the fundamental solution is to improve the regulatory and supervision of the banking sectors, and these prudential measures are "the best form of capital controls."

He may be correct on the possible long-run solution to the volatility of short-term capital flow. However, as the case of Japan shows, the financial sector reform is very difficult to accomplish within a short time even in a developed country. That is all the more so in the case of developing countries. As long as there is a chance for saving viable business with welfare-improving capital controls, they could be considered as a temporary and short-run measures to put the economy back on the path to "a good equilibrium."

3.2 The effectiveness of capital controls

One of the major objections to capital controls is their effectiveness. Even if they are considered to be welfare improving beforehand, they will not really become so unless control measures work all right as intended.

As Dooley (1996:669) pointed out correctly, empirical work on the effectiveness of capital controls suffers from lack of widely accepted definition of what constitutes an effective control program. This paper considers a policy regime to be effective if they attain the government initial objectives. The objectives of Malaysia were (1) to stabilize the asset prices and stop the deadly deflationary spiral, (2) to ease the monetary condition by bringing down interest rates and increasing a

liquidity, (3) and to regain positive growth.

There are three ways to examine whether capital controls, in fact, worked in Malaysia or not. One is a before-after approach. This is to compare the movement of the selected variables before and after the introduction of controls, such as exchange rates, interest rates, international reserves, stock market prices, GDP growth rates. The problem is, however, that it is never clear what causes the changes in those variables.

Another is to compare the average behavior of selected variables between countries with capital controls and countries without. The second approach would be better than the first one, although the problem of the first approach cannot be eliminated completely.

The third approach is to come up with the hypothetical values of selected variables which would have prevailed had Malaysia not adopted such controls in September 1999. The third one is ideally the best. However, to estimate those hypothetical variables is not only enormously difficult, but also not practically possible. Therefore, the first and the second approaches are used in this paper.

(a) A before-after approach

There is no doubt that the value of ringgit became stable because the Malaysian government fixed its value at 3.8 RM per U.S. dollar. Second, as seen in Figure 6, the international reserves started to build up sharply right after the imposition of capital controls in September 1998.[14] This is partly because the outflow of capital stopped. As a result, the stock market rebounded at the same time and the interest

[14] This could be due to the increasing surplus on the part of balance of current accounts. However, according to quarterly statistics of balance of payments of Malaysia, there is no evidence that the magnitude of current account surplus rose sharply after September 1999.

rate, which continued to stay around 10 percent, came down to around 6 percent within a month (Figure 8). And as Table 2 shows, the worst is past and Malaysia started to record the positive GDP growth rate in the 2nd quarter of 1999. It is clear that at least the government was able to attain the initial objectives, that is to say, to regain both stability and growth, with the introduction of capital controls.

(b) Comparison with countries without capital controls

Although recognizing some effectiveness of capital controls for Malaysia, IMF (1999: 9) does not give Malaysia full credit because the pattern of economic performance in Malaysia has in many respects been similar to that of other countries in the region. For instance, Korea and Thailand were able to stabilize their economies and regain some growth in 1999 without introduction of any restrictive capital controls. Is there any chance that Malaysia could have accomplished the same objectives without capital controls?

First of all, as we saw in Figures 6 and 7, Malaysia continued to suffer from the volatility of capital flow and the instability of asset prices such as stocks and foreign exchanges even after some stability came back to neighboring countries as in Thailand in the second quarter of 1998. Besides, as we saw, the instability of asset prices pushed Malaysia into a deadly deflationary spiral. It is noteworthy to remember that Malaysia's fundamentals were not too bad prior to the Asian crisis, compared to other Asian countries. Therefore, Malaysia seemed to have had a stronger rationale to resort to capital controls than other Asian countries.

Second, Malaysia had a stronger economic recovery in 1999 than Thailand. Table 7 shows comparison between the two countries in terms of the growth rates of GDP, investment, consumption, export and import. The last two variables were calculated in terms of U.S. dollar value. Both countries show a lot of similarities in terms of the way the economy contracted and revived in 1998 and 1999. However, Malaysia

seems to show a little stronger recovery than Thailand both in terms of investment and output especially in 1999. Besides, the recovery of export revenue was stronger and faster in Malaysia than in Thailand. Moreover, the rapid increase in the dollar value of import was consistent with the movement of export in the former, while the increase in export revenue is noteworthy in the latter as well, but the rate of increase is far below that of import. All of these seem to indicate that the recovery of Malaysia has been stronger and more sustainable than that of Thailand.

3.3 Long-run solution

Although capital controls were effective in bringing back the stability and the growth to the Malaysian economy, it was, nevertheless, not without cost. As Table 8 shows, the private long-term capital flow into Malaysia went down sharply in 1998. That is the lowest amount of inflow in the 1990s and FDI composes an important part of it. Even in 1999 there was not any strong recovery in the flow of FDI into Malaysia.[15] This implies that there is a chance that FDI was frightened off despite the Malaysian efforts to shield it from the controls, though their exact relationship is not known.

Now, Malaysia needs to make greater effort to bring back FDI into its economy, which may require the removal of control measures, at least, on the outflow of capital. If Malaysia wants to invite only the long-term capital, not the short-term capital, she could do so through the imposition of capital controls on the inflow, not on the outflow as in the case of Chile.[16]

---

[15]No strong recovery was seen in the 1999 official figure of application-based proposed foreign investment reported by Malaysian Industrial Development Authority(MIDA).

[16]It is important to note that, as Edwards (1998) shows, capital control measures are not so effective as we may think. However, the controls policy did affect the composition of flows (less of short-term capital and more of long-term capital) in Chile.

What Malaysia may also need to reconsider is her exchange rate system. As many economists express, the free-floating exchange rate system would be very difficult, especially, for developing countries.[17] However, its fixity of exchange rate only into the value of dollar may not be desirable either, because the dollar-yen exchange rate is extremely volatile. There is an unanimous agreement on the fact that FDI and export have played an important role in the growth process of Southeast Asia since the mid-1980s. That works, however, only when the value of yen is relatively high vis-a-vis U.S. dollar, because the high value of yen pushes Japanese companies to shift their production sites overseas and they export their product back to Japan or to the third country. However, once the value of yen depreciates against the U.S. dollar, everything will start moving into the opposite direction: less FDI outflow from Japan and less imports from overseas into Japan. In other words, if Malaysia continues to fix her currency only against the U.S. dollar, the flow of FDI and her export activities tend to be influenced too much by the volatility of the dollar-yen exchange rate. It would be desirable to fix her value of currency against the basket of major currencies, not just the U.S. dollar.

The costs associated with the current exchange and capital controls may outlive their benefits in the long-run.

4. Policy Implications

One of the ongoing academic discussion and policy debates is whether exchange and capital controls should become elements of an overall strategy of international crisis management. As Corsetti, Pesenti and Roubini (1998: 22) point out, there are three different, but related issues with respect to controls. One is the case for controls on the short-term inflows. Another is the case of controls on capital outflows in the

---

[17]See, for instance, Fischer (1999b: 455).

event of a crisis. The other is optimal speed and sequencing of capital account liberalization.

The case of Malaysia seems to suggest that controls on capital outflows could be effective and welfare improving at least in the short-run for a country in the middle of continuous capital flight, and a deadly deflationary spiral. However, it also suggests that it should be used only for a short time if the costs may outlive their benefits quickly.

Moreover, it is also important to note that they may not be applied to all of the countries with similar problems, especially if the costs of controls are considered to outweigh the benefits ex ante.

References

Abendroth, J. D. (1997), "Malaysian corporate capital structure", *RAM Focus no.7* (December)

Bank for International Settlements (1998), *68th Annual Report*, Geneva: Bank for International Settlements

Bank Negara Malaysia (1998), *Annual Report 1997*, Kuala Lumpur: Bank Negara Malaysia

_____(1999), "Economic and financial developments in the Malaysian economy in the third quarter of 1999", downloaded from *WWW.BNM.GOV.MY.*

Berg, A.(1999), "The Asia crisis: causes, policy responses, and outcomes", IMF Working Paper no. 99/138

Boopalan, R. (1998), "Malaysian banks: Is the worst over?" Worldsec Research Malaysia Report (23rd April)

Bosworth, B. P. (1998), "Comment on a paper by Furman and Stiglitz", *Brookings Papers on Economic Activity* 2

Cardoso, E. and Goldfajn, I. (1997), "Capital flows to Brazil: the endogeneity of capital controls", IMP Working Paper 97/115

Cooper, R. (1999), "Should capital controls be banished", *Brookings Papers on Economic Activity* 1

Corsetti, G.; Pesenti, P. and Roubini, N. (1998), "What caused the Asian currency and financial crisis? PartII: The Policy Debate", NBER Working Paper 6843

Dooley, M. P. (1996), "A survey of literature on controls over international capital trans actions", *IMF Staff Papers* 43, no.4

Edwards, S. (1998), "Capital flows, real exchange rates, and capital controls: some Latin American experiences", NBER working Paper 6800

Fischer, S. (1999a), "The road to a sustainable recovery in Asia", downloaded from *www.imf.org/external/np/speeches*

_____(1999b), "Currency crises", in *International Capital Flows*, edited by M. Feldstein, Cambridge, MA: NBER

Furman, J. and Stiglitz, J. E. (1998), "Economic crises: evidence and insights from east Asia", *Brookings Papers on Economic Activity* 2

International Monetary Fund (1999), "Malaysia: selected issues", IMF Staff Country Report, no. 99/86

Ito, T. (1999), "Capital flows in Asia", NBER Working Paper 7134

Kok, K. C., "Who will survive the crash?", Worldsec Research Malaysia Report (24 December)

Krugman, P. (1998), "Saving Asia: it's time to get radical", *Fortune* vol.138, no.5

_____(1999), "Analytical afterthoughts on the Asian crisis", Downloaded from *web.mit.edu/Krugman/www/MINICRIS.htm*

Lopez-Mejia, A.(1999), "Large capital flows: a survey of the causes, consequences, and policy responses", *IMF Working Paper 99/17*

Mishkin, F. S. (1997), *The economics of money, banking, and financial markets,* fifth edition, Reading, Massachusetts: Addison-Wesley

_____(1999), "Lessons from the Asian crisis", NBER Working Paper 7102

Mussa, M. and Savastano, M. (1999), "The IMF approach to economic stabilization", IMF Working Paper, no. 99/104

Okamoto, Y. (1999), "Malaysian Economic Crises" (Japanese), *Journal of Economics and Business Administration* vol.179, no.4

Radelet, S. and Sachs, J. D. (1998), "The East Asian financial crisis: diagnosis, remedies, prospects", *Brookings Papers on Economic Activity 1*

Rodrik, D. and Velasco, A. (1999), "Short-term capital flows", paper prepared for the 1999 ABCDE Conference at the World Bank

Sinohara, K. (1998), "Malaysia's new trial" (in Japanese), *Kokusai Kinyu* 1015 (November 15)

World Bank (1998), *East Asia: the road to recovery*, Washington, D.C.: The World Bank

Yen, K. M. (1998), "Section 176: an impact analysis", *RAM Focus* no. 9 (September)

Table 1. Short-term External Debt as a Percentage of Foreign Exchange Reserves

	Indonesia	Korea	Malaysia	Philippines	Thailand
End-1993	171	148	28	52	89
Mid-1997	182	214	62	88	153

Source: Bank for International Settlements (1998).

Table 2. Malaysia's Expenditure on Gross Domestic Product

(Percentage Changes over the Previous Period)

	GDP	Consumption		Investment	Exports	Imports
		Private	Public			
97.Q1	8.6	2.6	14.6	1.3	8.8	5.2
97.Q2	8.4	6.7	15.2	13.4	1.8	13.5
97.Q3	7.7	6.4	-8.1	19.6	6.8	7.0
97.Q4	5.6	2.0	12.7	2.4	4.5	-2.3
98.Q1	-3.1	-5.4	-16.8	-23.6	-1.4	-10.0
98.Q2	-5.2	-8.9	3.1	-42.7	1.0	-24.9
98.Q3	-10.9	-14.9	2.4	-56.4	-2.9	-23.6
98.Q4	-10.3	-13.8	-17.9	-45.0	2.5	-18.0
99.Q1	-1.3	-4.1	22.4	-22.9	1.2	-10.6
99.Q2	4.1	3.0	8.7	-8.8	12.5	6.2
99.Q3	8.2	4.6	5.3	13.7	20.6	17.0

Source: Bank Negara Malaysia,. *Monthly Statistical Bulletin,* various issues.

Table 3. Comparison of the U.S. and Malaysia Companies Inflow of Funds

		Number of firms	Internal Financing Percent	External Financing Percent			Equity
				Total Debt	Short-term Debt	Long-term Debt	
Malaysia	Non-financial Companies,	272	28	45	27	18	27
	Commercial Banks,	11	7	57	56	1	37
	Finance Co. & Merchant Banks	6	7	62	59	3	31
U.S.	Non-financial Companies	N.A.	52	45	24	21	3

Source: Abendroth (1997).

Note: (1) Figures for Malaysia is an average of KLSE listed companies over the period of 1992-1996.

(2) Those for the U.S. are over the period of 1970-79.

Table 4. Growth Rates of Nominal GDP and Outstanding Bank Loans, and Interest Rate Differentials Between Average Bank Lending Rates and Deposit Rates (%)

Year	Nominal GDP	Bank Loans	Interest Rate Differentials
1991	14.4	21.7	1.79
1992	12.2	9.8	2.44
1993	11.2	12.1	3.28
1994	15.2	14.7	2.97
1995	14.9	28.6	2.64
1996	14.1	26.8	2.91
1997	10.4	30.1	2.45

Source: The Author's calculation based on Bank Negara Malaysia, *Monthly Statistical Bulletin.*, various issues.

Table 5. Shares of Financial Sectors' Loans and Non-Performing Ratios by Sector

Share (%)	Manufacturing	Broad Property	Commerce	Business Services	Shares	Consumer	Others
the end of 1990	17.2	31.5	11.0	2.4	2.3	9.1	18.5
the end of 1994	17.9	28.0	7.3	2.5	5.4	9.7	24.6
the end of 1997	14.4	33.6	6.6	2.1	7.9	11.7	18.3
(the end of 1997)	(15.0)	(33.2)	(8.2)	N.A.	(9.3)	(12.7)	N.A.
NPL Ratio (%)	Manufacturing	Broad Property	Commerce	Business Services	Shares	Consumer	Others
June, 1997	4.8	4.9	3.3	1.1	0.9	3.9	N.A.
December, 1997	5.4	6.2	4.6	3.4	7.1	6.6	N.A.

Source: The Author's calculation based on Bank Negara Malaysia, Annual Report 1990, 1994,1997.

Note: (1) The figures in the parenthesis represent the shares of loan only for the banking sector.

(2) NPL stands for non-performing loan. The NPL ratios are those only of the banking sector.

Table 6. Pros and Cons for Capital Controls

Benefits	Costs
(1)Welfare improving when there are other types of market failures. (second-best arguments) (2) To attain the first-best good equilibrium.	(1) Administrative cost (2) May disrupt ordinary commerce (3) A potent source of corruption (4) May delay necessary structural reforms (5) Retaliation (6) Evasion (7) May frighten off even long-term private capital such as FDI. (8) The loss of the way to discipline the government's monetary and fiscal policies.

Table 7. Percentage Changes of the Selected Economic Variables over the Previous Period (%)

	Malaysia				Thailand			
	GDP	Investment	Export	Import	GDP	Investment	Export	Import
1998.Q1	-3.1	-23.6	-12.0	-20.3	-9.0	-23.8	-3.4	-40.0
1998.Q2	-5.2	-42.7	-10.0	-33.9	-12.7	-33.4	-5.2	-38.3
1998.Q3	-10.9	-56.4	-11.1	-29.8	-13.2	-31.2	-8.6	-34.1
1998.Q4	-10.3	-45	5.4	-19.6	-6.6	-19.2	-9.9	-18.6
1999.Q1	-1.3	-22.9	5.2	-6.1	0.9	-13.9	-3.7	10.4
1999.Q2	4.1	-8.8	15.6	10.1	3.3	1.1	5.8	24.2
1999.Q3	8.2	13.7	21.5	22.3	7.7	6.1	11.3	35.1

Source: Malaysia — See Table 2.
Thailand — GDP and investment figures from NESDB statistics.
Trade figures from IMF, *International Financial Statistics*, various issues.

Note: Figures of export and import are their growth rates calculated in U.S. dollar value.

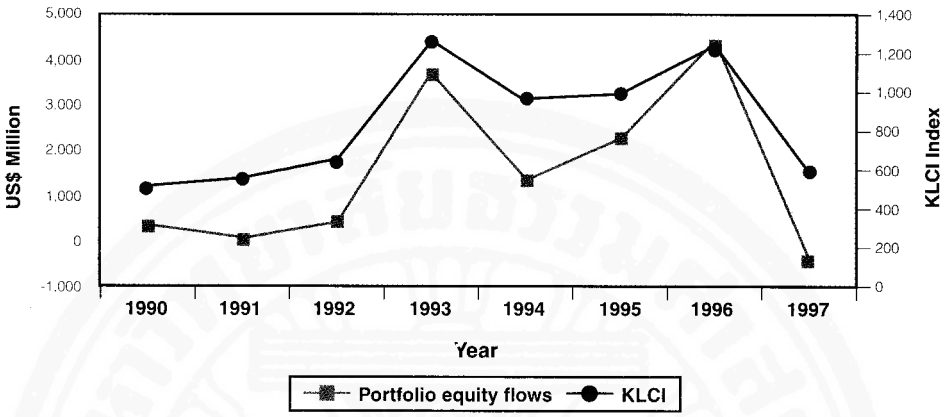
Table 8. Balance of Payments Statistics for Malaysia

(US $ Million)

Year	Current Account Balance	Official Long-term Capital	Private Long-term Capital	Private Short-term Capital
1990	-918	-1049	2333	501
1991	-4234	-242	3999	1867
1992	-2207	-1129	5184	4694
1993	-3079	380	5006	5412
1994	-5631	328	4117	-3234
1995	-8631	2451	4172	1008
1996	-4462	297	5079	4101
1997	-5623	1651	5136	-4590
1998	9379	545	2164	-5260

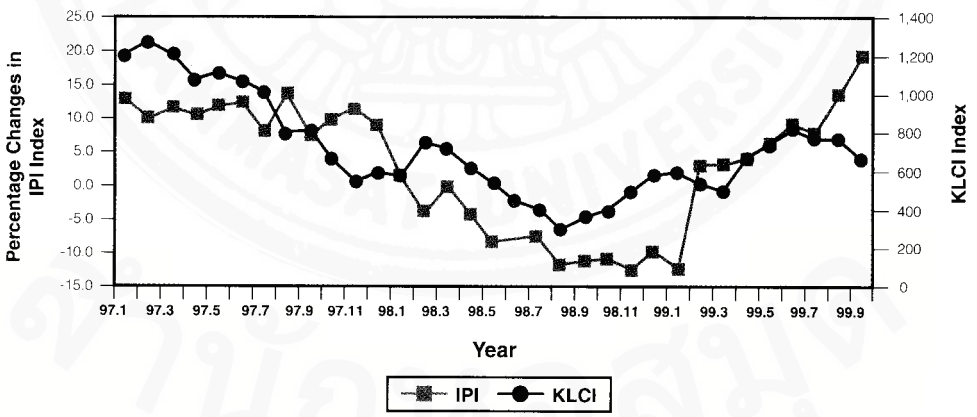
Source: See Table 2.

Figure 1. Portfolio Equity Flows and Stock Market Prices (KLCI)



Source: See Table 2.

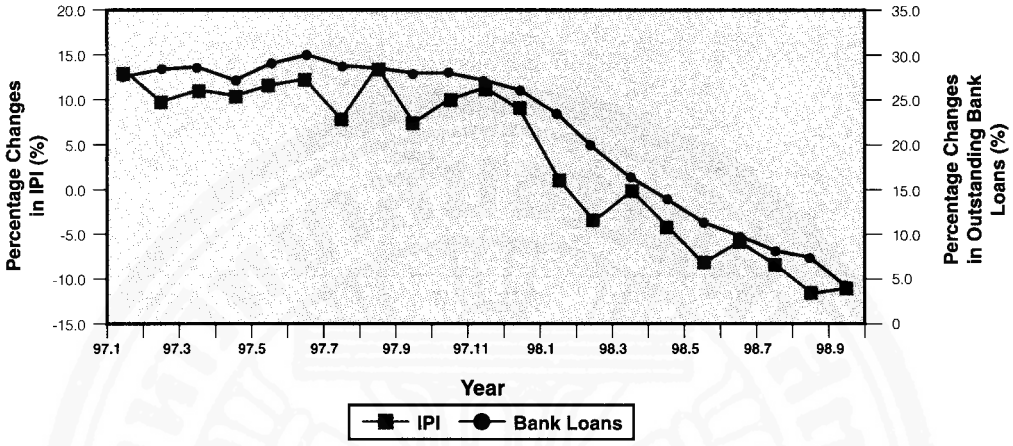
Figure 2. Industrial Production Index (IPI) and Stock Market Prices (KLCI)



Source: See Table 2.

Note: The simple correlation coefficient is 0.689.

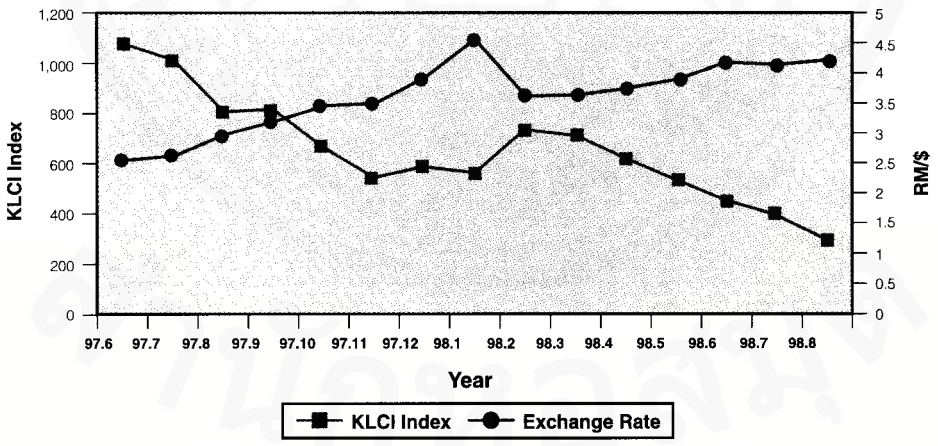
Figure 3. Outstanding Bank Loans and Industrial Production Index (IPI)



Source: See Table 2.

Note: The simple correlation coefficient is 0.96.

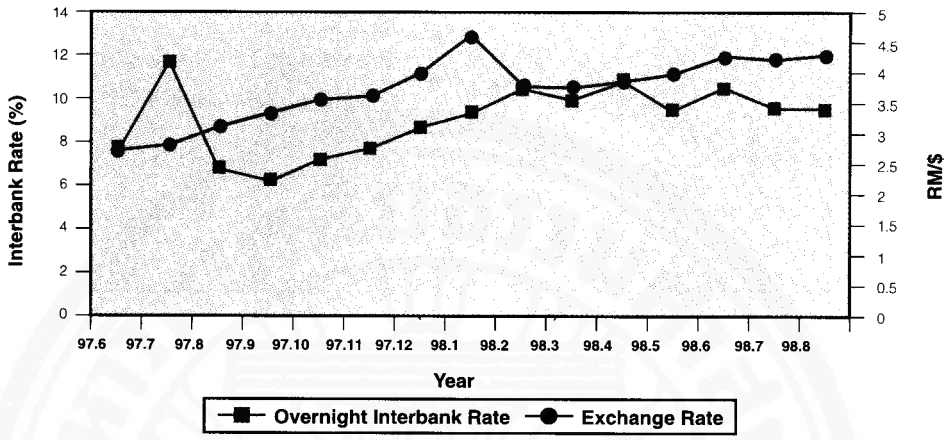
Figure 4. Exchange Rate and Stock Price (KLCI) Movements



Source: See Table 2.

Note: The simple correlation coefficient is -0.89.

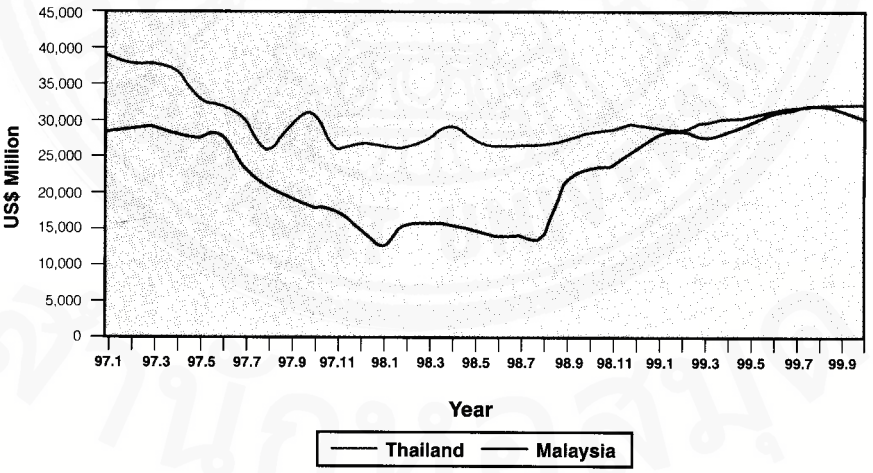
Figure 5. Exchange Rate and Overnight Interbank Rate



Source : See Table 2.

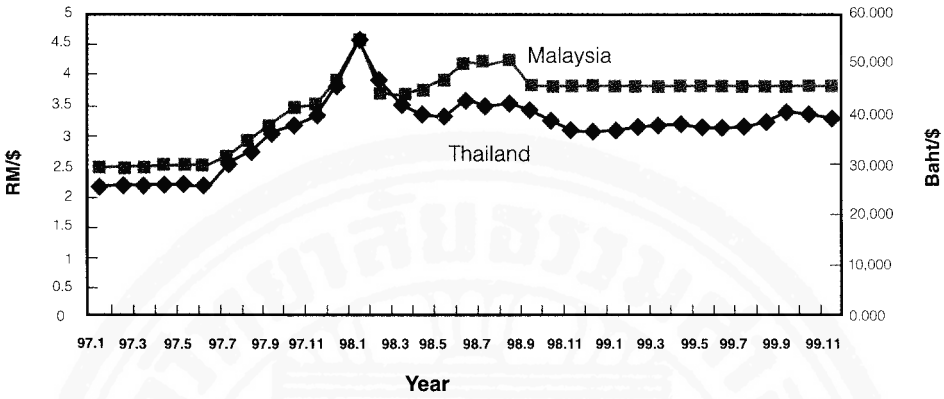
Note: The simple correlation coefficient is 0.313.

Figure 6. International Reserves of Malaysia and Thailand



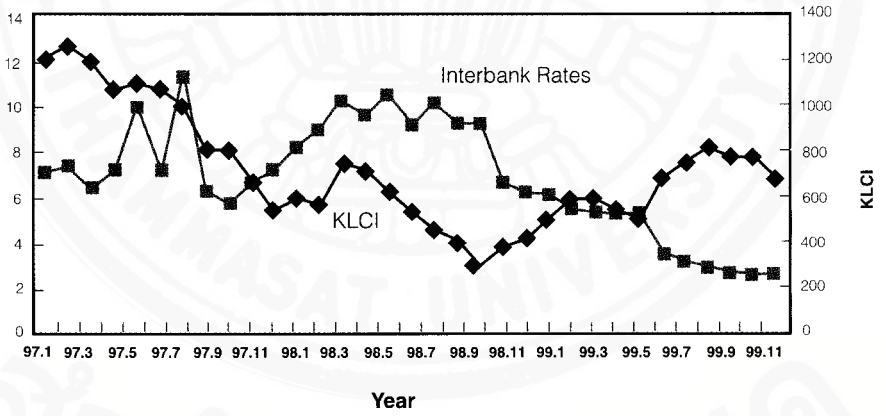
Source: See Table 2. Also, Mf statistics.

Figure 7. Exchange Rate Movements of Malaysia and Thailand



Source: See Figure 6.

Figure 8. KLCI and Interbank Rates



Source: See Table 2.