

Yap, Josef T.; Rana, Pradumna B.

Working Paper

Tracking East Asia's Recovery from the Capital Account Crisis: Analysis, Evidence and Policy Implications

PIDS Discussion Paper Series, No. 2001-01

Provided in Cooperation with:

Philippine Institute for Development Studies (PIDS), Philippines

Suggested Citation: Yap, Josef T.; Rana, Pradumna B. (2001) : Tracking East Asia's Recovery from the Capital Account Crisis: Analysis, Evidence and Policy Implications, PIDS Discussion Paper Series, No. 2001-01, Philippine Institute for Development Studies (PIDS), Makati City

This Version is available at:

<https://hdl.handle.net/10419/127751>

Standard-Nutzungsbedingungen:

Die Dokumente auf EconStor dürfen zu eigenen wissenschaftlichen Zwecken und zum Privatgebrauch gespeichert und kopiert werden.

Sie dürfen die Dokumente nicht für öffentliche oder kommerzielle Zwecke vervielfältigen, öffentlich ausstellen, öffentlich zugänglich machen, vertreiben oder anderweitig nutzen.

Sofern die Verfasser die Dokumente unter Open-Content-Lizenzen (insbesondere CC-Lizenzen) zur Verfügung gestellt haben sollten, gelten abweichend von diesen Nutzungsbedingungen die in der dort genannten Lizenz gewährten Nutzungsrechte.

Terms of use:

Documents in EconStor may be saved and copied for your personal and scholarly purposes.

You are not to copy documents for public or commercial purposes, to exhibit the documents publicly, to make them publicly available on the internet, or to distribute or otherwise use the documents in public.

If the documents have been made available under an Open Content Licence (especially Creative Commons Licences), you may exercise further usage rights as specified in the indicated licence.

Tracking East Asia's Recovery
from the Capital Account Crisis:
Analysis, Evidence and Policy Implications

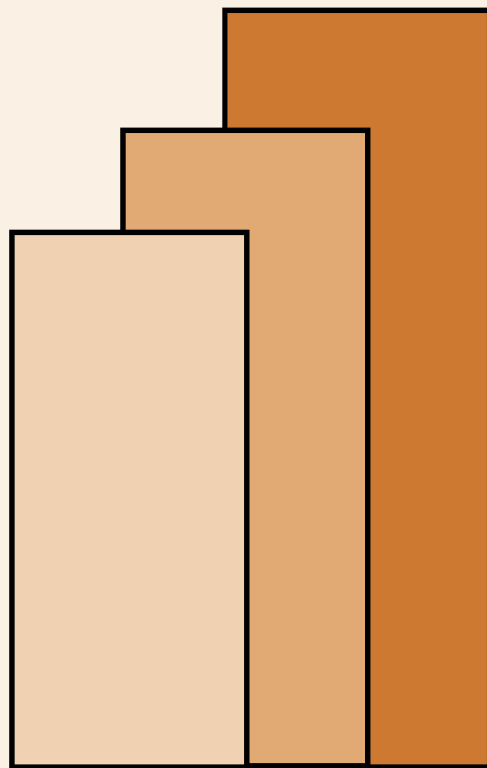
Pradumna B. Rana and Josef T. Yap

DISCUSSION PAPER SERIES NO. 2001-01

The *PIDS Discussion Paper Series* constitutes studies that are preliminary and subject to further revisions. They are being circulated in a limited number of copies only for purposes of soliciting comments and suggestions for further refinements. The studies under the *Series* are unedited and unreviewed.

The views and opinions expressed are those of the author(s) and do not necessarily reflect those of the Institute.

Not for quotation without permission from the author(s) and the Institute.



January 2001

For comments, suggestions or further inquiries please contact:

The Research Information Staff, Philippine Institute for Development Studies
3rd Floor, NEDA sa Makati Building, 106 Amorsolo Street, Legaspi Village, Makati City, Philippines
Tel Nos: 8924059 and 8935705; Fax No: 8939589; E-mail: publications@pidsnet.pids.gov.ph
Or visit our website at <http://www.pids.gov.ph>

Abstract

(Tracking East Asia's Recovery from the Capital Account Crisis: Analysis, Evidence and Policy Implications)

The strong recovery of the five crisis-affected countries of East Asia between 1999 and 2000 has revived the debate on the causes of the 1997 financial crisis. Initially there had been an emerging consensus that the crisis had originated from the capital account. However, some analysts see the faster-than-expected recovery as a vindication of IMF policy prescriptions, which tended to treat the crisis as a problem with the current account. This paper shows that the capital account interpretation is still relevant and that the recovery process is being dominated by factors directly related to the 1997 crisis.

Keywords: capital-account crisis, contagion, double mismatch, exchange rate overshooting

Tracking East Asia's Recovery from the Capital Account Crisis: Analysis, Evidence and Policy Implications

*Pradumna B. Rana and Josef T. Yap*¹

I. Introduction

The strong recovery of the five crisis-affected countries² of East Asia between 1999 and 2000 has revived the debate on the causes of the 1997 financial crisis. Initially there had been an emerging consensus that the crisis had originated from the capital account. However, some analysts see the faster-than-expected recovery³ as a vindication of IMF policy prescriptions, which tended to treat the crisis as a problem with the current account. This paper looks at the economic performance immediately after the crisis and more recent trends and analyzes whether or not these are consistent with the consensus view of the nature of the crisis.

The emerging consensus had been that the economic debacle in 1997 was a capital account crisis. Massive inflows of mostly short-term capital preceded the economic problems that emerged in the five countries, particularly in Thailand. After the devaluation of the baht in July, 1997 the region-wide crisis was precipitated by an abrupt and large withdrawal of capital in the five countries. Subsequent economic adjustments to this condition will be described analytically in the next section.

Empirical data will be used to substantiate the theoretical framework. The data, which are presented in Section III, will also help resolve a key debate as to whether the IMF prescriptions implemented after the crisis were effective. The orthodox policy approach advocated a tightening of both monetary and fiscal policy as an immediate response to the crisis.

Section IV then links present economic trends with the analysis in Section II. The recent hike in US interest rates and increase in fuel prices may have caused a fundamental shift in the recovery process. Meanwhile, political uncertainties in some of the countries may also have had an adverse impact on economic prospects. However, it will be argued that the slide in asset prices in 2000 has its roots in the 1997 crisis. The last section looks at policy implications that are consistent with the capital-account crisis framework.

¹ Dr. Rana is manager of the Regional Economic Monitoring Unit (REMU) of the Asian Development Bank and Dr. Yap is a Senior Research Fellow at the Philippine Institute for Development Studies (PIDS). The authors would like to acknowledge data from the Asia Recovery Information Center (ARIC) of the REMU and the excellent research assistance provided by Ms. Roselle Dime. The usual disclaimer applies.

² Indonesia, Korea, Malaysia, the Philippines and Thailand.

³ The GDP growth rate of Korea was 11 percent in 1999 compared to an IMF projection of 2 percent in May 1999. Indonesia, Malaysia, the Philippines and Thailand grew by a combined 3 percent in 1999, as opposed to earlier IMF projections of a further contraction in economic activity (UNCTAD, 2000).

II. The Capital Account Crisis Revisited

There were roughly two views on the causes of the 1997 East Asian financial crisis (Rana and Lim, 1999). According to one view, the crisis resulted from weak macroeconomic fundamentals; in other words, it was a question of solvency. The competing view holds that the crisis is more consistent with a second generation BOP crisis, which is driven by self-fulfilling prophecies and financial panic. The emerging consensus is that the East Asian crisis differed from previous economic crises in several key aspects. First, it was a crisis of confidence, a capital account crisis, and not a traditional current-account crisis. The crisis involved private-to-private capital flows, not fiscal profligacy or monetary expansion. Second, unlike other crises of confidence of the 1980s and 1990s, its root causes were structural—premature financial liberalization (i.e. liberalization of capital account and financial markets without adequate supervision and regulation in place), crony capitalism, and policy mistakes in managing private capital flows—and not weak macroeconomic fundamentals. Third, it was a liquidity crisis and not a solvency crisis.

To explain its nature as a capital account crisis, we employ a simple dependent economy model of Salter and Swan. In equation form, abstracting from error and omissions in the capital account, we have:

$$K = CAD + R \quad (1)$$

where K is net capital inflows, CAD is the current account deficit and R is accumulation of reserves. We assume that K is intermediated by commercial banks.

On the other hand, the current account deficit can be expressed as:

$$CAD = A - GNP \quad (2)$$

where A is domestic expenditure or absorption and GNP is gross national product and represents income. Domestic expenditure is comprised of investment and consumption. Abstracting from transfers, CAD reduces to the trade deficit. Meanwhile, GNP can be divided into output of tradables, Q_T and output of nontradables, Q_N thus

$$GNP = Q_T + Q_N \quad (3)$$

Since ex post, $Q_N = A_N$, output of nontradables is equal to demand for nontradables, Equation 2 can be reduced to

$$CAD = A_T - Q_T \quad (4)$$

where A_T is the level of spending on tradable goods.

Graphically the process can be illustrated in Figure 1. The production possibility frontier shows the range of tradable and nontradable goods that can be produced in an economy. The absorption schedule A shows the level of domestic spending that falls on the two types of goods. When the economy is at point Q1 (Figure 1A), total absorption equals total production. In this situation, trade is balanced ($CAD = 0$).

Typically a developing country is at a point Q2 where absorption is equal to A_2 and the economy is running a trade deficit ($A_T > Q_T$). The trade deficit is equal to $A_{2T} - Q_{2T}$ (Figure 1B). The slope of the PPF measures the real exchange rate, P_T/P_N . The real exchange rate is more appreciated in Q2 than it is at Q1. If the trade deficit is not sustainable, i.e. it is inconsistent with K or reserves are running low, the country may apply a stabilization program to reduce A or allow the currency to depreciate in real terms until the economy goes back to Q1.

Prior to the crisis, there was a surge in K to emerging market economies, driven by a combination of “push” and “pull” factors. “Push” factors are external to the country, foremost among which are the fall in international interest rates, recessions in industrialized countries and realignments in the major international currencies (e.g. the appreciation of the yen vis-à-vis the dollar). On the other hand, “pull” factors refer to aspects that make a country a more attractive destination for foreign capital. Successful structural adjustment programs are one example. Meanwhile, capital account liberalization is often cited as the major reason for the surge in portfolio investment to emerging market economies (Taylor and Sarno, 1997).

From Equation 1, the increase in K can be accompanied by a widening current account deficit and/or an accumulation of foreign exchange reserves. The trend for emerging economies favored higher current account deficits, manifested by consumption booms driven by rising imports of durable goods (Calvo, Leiderman and Reinhart, 1996). There were also sharp increases in stock and real estate prices indicating that the nontradable goods sector was also affected by capital flows. The appreciation of the real exchange rate induced by the capital inflows actually favored the nontradable goods sector.

The Thai crisis in 1997 was triggered by problems with the current-account aggravated by excessive short-term debt and capital-account openness (UNCTAD, 2000). However, the current account deficit was driven by capital flows and not fiscal profligacy or monetary expansion. Meanwhile, the regional contagion was brought about by a large and sudden reversal of K , which has been described as a “sudden stop” (Calvo, 1998). The fall in K could not be sustained by the level of R . For the developing economies involved, this led to a sharp real currency depreciation, bringing them to Q3. The level of absorption dropped to A_3 , generating a surplus equal to $Q_{3T} - A_{3T}$ (Figure 1C).

When the IMF became involved, it required the implementation of policy measures—closure of banks, tight monetary policy, and fiscal prudence—that further reduced absorption. Supporters of this approach argue that the stabilization policies were necessary to restore the confidence of international investors. However, the initial

reaction—particularly to the bank closures—was further capital flight which, when combined with lower demand, further depreciated the currency, bringing the economy to Q4. A key outcome was exchange rate overshooting. Currency crises that result from investor panic and herd behavior lead to exchange rate effects much more severe than what vulnerability indicators alone can explain (Rana and Lim, 1999).

The description of the crisis as a liquidity crunch can be explained by extending the basic model. Internally, the crisis was a banking crisis associated with severe credit contraction (Yoshitomi and Ohno, 1999). This feature effectively rules out first-generation models but highlights the limitation of second-generation crisis models in explaining the 1997 crisis (Yoshitomi and Shirai, 2000). The aggregate balance sheet of the commercial banks can be simplified as follows:

Commercial Banks Balance Sheet

Assets	Liabilities
Outstanding Loans, L	Capital and Reserves
	Foreign liabilities, (F ₋₁ + K)*E
	Deposits, D

The capital inflows, K, which surged prior to July 1997, were mostly intermediated by commercial banks. This added to total foreign liabilities, (F₋₁ + K)*E, where F₋₁ is foreign liabilities in the previous period, and E is the nominal exchange rate. Even if K was mostly short-term, these were generally rolled over, reflecting the positive outlook for the East Asian economies at that time. The higher foreign liabilities provided a basis for extending more loans, increasing L.

Meanwhile, the accumulated foreign exchange reserves, R is related to the money supply process as follows:

$$RM = NDA + NFA \tag{5}$$

where RM is reserve money, NDA is net domestic assets of the central bank and NFA is net foreign assets of the central bank. $NFA = R * E$, or foreign exchange reserves converted to the local currency.

From the liabilities side, reserve money can be expressed as

$$RM = CU + D \tag{6}$$

where CU is currency in circulation and D is the level of demand deposits. Combining Equations 5 and 6 with the identity for NFA, we have

$$D = NDA + R * E - CU. \quad (7)$$

D rises with K to the extent that R rises with K (see Equation 1). Hence another source of loanable funds was the increase in deposits, D that resulted from net foreign assets of the central bank.

The situation typifies the double mismatch problem: a mismatch in terms of maturity and currency. A maturity mismatch is generally inherent in the banking industry but this was amplified because a significant amount of K was short-term. On the other hand, the currency mismatch resulted from substantial unhedged foreign borrowing.⁴ This type of borrowing was encouraged by a belief that the implicit dollar pegs in some of the economies would be maintained in the foreseeable future since sound macroeconomic fundamentals were expected to last (Yoshitomi and Shirai, 2000).

When the crisis of confidence emerged, investors began withdrawing capital from the five countries. Short-term credits were also not rolled over. This had the direct effect of reducing loanable funds. However, the liquidity crisis arose when the currency depreciated sharply (E increased) making commercial bank liabilities much greater than assets. In the case of dollar denominated loans, borrowers who did not earn foreign exchange and were unhedged experienced difficulty in repaying their debts. The situation was exacerbated by the fall in domestic demand, putting a tremendous amount of pressure on the assets side.

Meanwhile, the aforementioned structural weaknesses implied that some of the loans were of dubious quality. This led to a further increase in the nonperforming loan ratio and brought many banks and firms near the point of insolvency. Bank runs also led to a decline in deposits. In some of the countries there was a state of disintermediation in the financial sector.

In order to correct the imbalance, commercial banks had to draw on their capital and loan loss reserves. Banks in Indonesia, Korea and Thailand were required to recapitalize at an unprecedented level. The overall result was new loans were not forthcoming and L declined over time.

The stabilization policies imposed by the IMF would have had a positive impact if exchange rate volatility were reduced. This debate will be resolved in the next section. What is certain is that the hike in interest rates made loan repayment more difficult, heightening the balance sheet difficulties of firms and the commercial banks. The overall

⁴ The way the balance sheet is laid out, the commercial banks convert the dollar liabilities to the local currency and lend also in local currency. Commercial banks did lend directly in dollars but most of the borrowers did not have dollar revenues and were also not hedged. The currency mismatch problem is relevant in either case.

result for the five hardest hit economies was a twin crisis: a combination of currency and banking crises.

III. The Aftermath of the Crisis

Empirical data for the five crisis-affected countries generally support the capital account crisis version of the 1997 crisis. According to data from the IMF, there was a reversal of private capital flows to the five countries, amounting to \$95.6 billion between 1996 and 1998 (Table 1). This is equivalent to 10 percent of the their combined GDP. By January, 1998 currencies had depreciated by between 40 and 75 percent in nominal terms (Figure 2). The real exchange rate exhibited similar trends (Figure 3). The sharp depreciation of currencies reflects overshooting due to investor panic at that time. The equally steep fall in equity prices between June, 1997 and September, 1998 is also a result of the decline in investor confidence (Figure 4).

Interest rates were raised almost immediately after the crisis but at varying degrees (Figure 5). However, the effect on exchange rates was virtually nil since currencies continued to depreciate. Several empirical studies show that interest rates do not have the desired impact on exchange rates during an economic crisis.⁵ Meanwhile, real bank credit has been contracting for most of the countries (Figure 6) reflecting commercial bank balance sheet adjustments and the initial tightness in monetary policy. This had an adverse effect on domestic absorption, although the decline was also precipitated by the crisis-of-confidence prevailing at that time. The levels of private consumption expenditure (Figure 7) and gross domestic investment (Figure 8) fell and in most cases there was a prolonged contraction. The reduction in aggregate demand and higher exchange rate resulted in a similar fall in imports (Figure 9). As a result, current account balances turned from a deficit position to surpluses between the third quarter of 1997 and the first quarter of 1998 (Figure 10).

The turnaround in the current account balance provided foreign exchange resources that helped stabilize the exchange rates. Hence, the increase in the interest rates did help improve exchange rates, albeit in an indirect manner (UNCTAD, 2000). Investor confidence definitely did not respond as intended by the orthodox policy approach. There is also a tendency to forget that the higher-than-expected growth in 1999 was preceded by a deeper-than-anticipated recession in 1998 (Figure 11). The Consensus forecasts for 1998 were continually revised downwards between June, 1997 and August, 1998.

If the crisis were brought about by excessive monetary growth and imprudent fiscal policy, the orthodox policies would have had a positive effect especially on investor confidence. However, fiscal balances by and large were in surplus prior to the

⁵ Rana and Lim (1999) cite the study of Kraay (1998), which was unable to reject the hypothesis of no significant relationship between interest-rate policies and the success or failure of speculative currency attacks. Goldfajn and Gupta (1998) found evidence of a positive link between interest rates and exchange rates, but this link is reversed when a country faces a banking crisis.

crisis and tight monetary policy exacerbated investor panic, indicating that high monetary growth was not considered a problem. Moreover, unlike financial systems in Latin America and other developing regions, Asian financial systems had high ratios of bank deposits and loan intermediation to GDP and of corporate debt to equity. They were therefore vulnerable to shocks that depressed cash flows or the supply of bank or portfolio capital (Rana and Lim, 1999).

A report submitted by the government of Korea succinctly describes the adverse side-effects of high interest rates, which included the “accelerated slowdown in real economic activity through the contraction of consumption and investment; the greatly increased incidence of corporate failures; and the further increase in nonperforming loans of financial institutions.”⁶ Since IMF prescriptions obviously did not achieve their desired objective, their appropriateness and relevance can be seriously questioned.

IV. Recovery, Restructuring and Reform

The crisis bottomed out in the second half of 1998. Investors were calmed by the rescheduling of foreign debt and the stabilization of exchange rates. Equity prices rebounded beginning the last quarter of 1998 (Figure 4). Recovery proper then began in early 1999 with the resumption of growth, initially driven by more accommodating fiscal and monetary policies, a favorable global economic environment, and supportive supply-side and relative price adjustments (ADB-ARR, 2000). Fiscal pump-priming and lower interest rates were a conscious reversal of IMF prescriptions.

Real GDP growth has increased in all five countries (Figure 12). However, the pace has varied widely. Buoyed by some sort of virtuous circle between growth and structural rehabilitation, Korea exceeded its pre-crisis peak level of per capita GDP by the end of 1999. Solid recovery is improving the cash flow positions of banks and corporations, and bank credit is starting to flow once again. Credit flows, in turn, are facilitating domestic demand and fueling recovery (ADB-ARR, 2000). Empirical data point to Korea’s stronger recovery (Figures 6, 7, 8 and 12). The major reason for this was that the rescheduling of foreign debt and reversal of tight fiscal and monetary policy was pursued much more rapidly in Korea (UNCTAD, 2000). Bank and corporate restructuring has also progressed more in Korea compared to the other four countries (ADB-ARR, 2000). Malaysia can be considered to be on a lower growth track, followed by Thailand, the Philippines and Indonesia.

The faster than expected recovery of the five countries may have weakened the contention that these economies suffered from serious structural and institutional shortcomings and that they would be unable to resume growth unless these shortcomings were effectively addressed (UNCTAD, 2000). However, a more relevant argument would be that the persistence of these structural weaknesses would affect longer-term growth prospects. Hence, bank re-capitalization and restructuring and the resolution of

⁶ Ministry of Finance and Economy, the Republic of Korea’s crisis resolution and its policy implications (final draft), G-20 Report, Seoul, December, 1999:18. As quoted by UNCTAD (2000).

corporate debt have been given high priority even in the early stages of recovery. The slow progress in this area could be one reason why the pace of economic growth has stabilized in most of the countries.

Another dark cloud in the horizon has been the retreat in equity markets in the first ten months of 2000 (Figure 4). In Indonesia, the Philippines, and Thailand, equity losses have been accompanied by renewed depreciation of domestic currencies (Figure 2). The fall in asset prices has been influenced by external and domestic factors. Externally, rising US interest rates have induced downward adjustments in global and regional equity markets. The volatility of prices of information technology stocks in the US has also led to downward corrections in the stock markets of other economies.

Meanwhile, domestic concerns have also dampened investor expectations and eroded confidence. These factors include the slow pace of bank and corporate restructuring, limited progress in structural reforms, and, in some countries, deterioration in fiscal positions and perceived heightening of political risks (ADB-ARR, 2000).

Higher US interest rates have also affected exchange rates by reducing the attractiveness of domestic currency assets. The aforementioned domestic concerns have also influenced the movement of currencies. One has only to look at the uncanny similarity between the outlier behavior of the Indonesia rupiah between June, 1997 and July, 1998 (Figure 2) and the slide in the Philippine peso in October, 2000, to realize that political factors are significant.

Most of these factors, however, are reflected in the behavior of capital flows, which is still the overriding factor in determining exchange rates. Net private capital flows to Indonesia and Thailand have been negative so far in 2000, and a large amount of portfolio capital has left the Philippines (ADB-ARR, 2000). For the five countries, the WEO predicts a large withdrawal of "other private capital flows" in 2000 (Table 1). This is caused mainly by accelerated loan repayments, which is clear evidence that the present depreciation of the currencies of the three countries has strong links to the crisis in 1997.

Despite the projected large withdrawal of private capital flows in 2000, the five countries are in no imminent danger of falling into another full-blown crisis. First, the loan repayments are largely anticipated and should not cause major balance sheet adjustments. In 1997, the non-renewal of short-term loans was not expected and proved quite disruptive. Second, net foreign direct investment is predicted to experience the second largest decline in 2000. Since FDI flows are generally not intermediated by commercial banks, the decline will have little repercussion on the financial system. However, this would impinge on medium-term growth prospects. Finally, the five countries are clearly on different growth paths, making it easier for foreign investors to make finer distinctions among them. Contagion on a similar scale as in 1997 is therefore not likely.

To summarize, the recovery process of the five countries is dominated by factors emanating from the 1997 crisis. For example, the ranking of output growth depends on

which country was able to reverse the IMF prescribed policies more quickly and made faster progress in bank and corporate restructuring. Meanwhile, even if US interest rates have taken their toll on currencies in the region, the more significant factor has been capital outflows due to repayments of loans incurred at the peak of capital inflows. The more important domestic factors that have deterred capital flows can also be traced to the 1997 crisis. Lethargic bank and corporate restructuring is a consequence mainly of the depth of the crisis. Fiscal deficits in some of the countries widened because of the need to jump-start the economies after the collapse in domestic demand.

V. Policy Implications

The divergence in the pace of recovery, the persistent structural problems, and the recent drop in asset prices, only serve to emphasize that the reform process is not complete. Understanding the nature of the crisis is, of course, necessary in order to design the appropriate policies. Since the crisis originated from the capital account and structural factors were the root cause of overborrowing, policy reforms must focus on these areas. Initiatives can be undertaken at the domestic, regional and international level.

At the domestic level, reforms must effectively address the structural weaknesses that led to the crisis. The microeconomic distortions—referring to asymmetric information and moral hazard—that led to overborrowing and/or overlending must be reduced. This can be achieved by the appropriate pacing and sequencing of the liberalization process (Rana and Lim, 1999). The sequencing procedure, in this sense, has less to do with the order of current account and capital account liberalization but more with the necessity of implementing institutional reforms prior to easing restrictions on capital flows. Domestic financial intermediaries that lack competence are likely to misallocate capital.

Building a robust and efficient financial system capable of effectively intermediating international capital flows is a crucial precondition. Inter alia, it entails the adoption of international norms for regulatory standards, information disclosure and bankruptcy proceedings. The supervisory capacity of the monetary authority must also be strengthened in order to ensure that banks meet capital requirements, make adequate provision for bad loans, and subscribe to limitations on connected lending. International standards in prudential risk management must also be adopted. Aside from credit and liquidity risk, the private sector must also consider the foreign exchange risk in capital account transactions. Lastly, the domestic capital market—the corporate bond market in particular—must be deepened. This would improve domestic resource mobilization, minimize maturity mismatch, and enhance the ability of the economy to absorb greater capital flows.

Meanwhile, one reason for the faster than expected recovery in 1999 is that macroeconomic policies are now conducted with greater clarity and coherence. In particular, there have been significant changes in the conduct of monetary policy. The

informal dollar pegs pursued before the crisis have been abandoned in Indonesia, Korea, the Philippines, and Thailand. Only Malaysia has maintained a pegged exchange rate. Korea, the Philippines, and Thailand have seen moves toward explicit inflation targeting frameworks, with Indonesia intending to follow the same path. Inflation targeting is likely to promote greater transparency and independence in monetary policy. It will enhance policy credibility and may help lower inflationary expectations, thereby reducing actual inflationary pressures and lowering interest rates.

However, the effectiveness of macroeconomic policy will always be hampered by volatile capital flows and financial development is a time-consuming process. Direct management of capital flows, therefore, should be an integral part of any set of policy reforms. The experience of Chile suggests that it would be worthwhile to consider measures to influence the level and composition of capital inflows. Reserve requirements, withholding taxes, and a transactions tax (i.e. the Tobin tax) are some instruments that can be analyzed. Meanwhile, the Malaysian experience demonstrates that controls on outflows can work in times of a crisis (Krugman, 1999). However, it should be emphasized that these controls can eventually be circumvented and thus cannot function effectively as long-term measures.

Policy options at the regional level have naturally focused on cooperation among East Asian economies. Soon after the crisis, Japan proposed the establishment of the Asian Monetary Fund and offered to commit half of the recommended \$100 billion in reserves. The AMF was envisaged to perform the function of a lender of last resort in the East Asian region. A lack of institutional and intellectual infrastructure hindered the progress of the proposal. Moreover, the US and the IMF opposed the proposal, arguing that the IMF could in principle perform all the functions of the AMF. There was also concern that the existence of the AMF would weaken the ability of the IMF to impose conditionalities.

A more feasible option is the proposal to expand the existing ASEAN currency swap arrangement. In a standard set-up, a currency swap arrangement creates a mechanism by which countries with strong foreign-exchange reserves can provide short-term, hard currency loans to others whose currencies are under pressure or are experiencing balance of payment problems. Under the so-called Chiang Mai initiative, the existing ASEAN swap arrangement would be enlarged to include the other members of ASEAN. In addition, a network of bilateral swap and repurchase agreements will be concluded among ASEAN, Japan, China and South Korea.

The rather unfortunate experience with orthodox policies as a response to the capital account crisis suggests that the panic situation could have been avoided by introducing a debt standstill and bringing borrowers and lenders together to reschedule short-term debt, reinforced by a rapid provision of international liquidity to replenish reserves and provide current financing (UNCTAD, 2000). A more orderly crisis-management process at the international level can be achieved by introducing so-called bail-in measures for private creditors (Eichengreen, 1999; Yoshitomi and Shirai, 2000).

These measures constitute collective action clauses that reduce the incentive for pre-emptive action on the part of private creditors.

Volatile capital flows spawned by speculative investments remain a global concern. Foreign currency trade is an epitome of the problem. In 1980, the daily average of foreign exchange trading was \$80 billion, a 10:1 ratio to world trade. By 1992, daily trading reached \$880 billion with a ratio of 50:1. In 1995, daily trading was \$1.26 trillion and the ratio to world trade was 70:1 (Eatwell, 1996). In such an environment, the incidence of capital account crises is expected to increase. These crises will likely have a dual nature—currency and banking crises—and the cost of their resolution will likely rise over time (Rana and Lim, 1999). The long-term challenge for policy makers is to restructure the international financial architecture to reduce the likelihood of future capital account crises.

References

- Asian Development Bank (2000): *Asia Recovery Report* (October). Downloaded from <http://aric.adb.org>.
- Calvo, G. A. (1998): “Capital Flows and Capital Market Crises: The Simple Economics of Sudden Stops” *Journal of Applied Economics*, 1 (November).
- Calvo, G. A., L. Leiderman and C. M. Reinhart (1996): “Inflows of Capital to Developing Countries in the 1990s: Causes and Effects” *Journal of Economic Perspectives* 10 (2).
- Eatwell, J. (1996): “International Financial Liberalization: The Impact on World Development.” United Nations Development Programme, Office of Development Studies, Discussion Paper Series, 12.
- Eichengreen, B. (1999): *Toward a New International Financial Architecture: A Practical Post-Asia Agenda*. Washington DC: Institute for International Economics.
- Goldfajn, I. and P. Gupta (1998): “Does Monetary Policy Stabilize the Exchange Rate?” Manuscript.
- Kraay, A. (1998): “Do High Interest Rates Defend Currencies During Speculative Attacks?” Manuscript.
- Krugman, P. (1999): “Capital Control Freaks: How Malaysia Got Away with Economic Heresy” *Slate*. Downloaded from <http://slate.msn.com/Dismal/99-09-27/Dismal.asp>.
- Rana, P. B. and J. Y. Lim (1999): “The East Asian Crisis: Macroeconomic Policy Design

and Sequencing Issues” in *Rising to the Challenge in Asia: A Study of Financial Markets Volume I*. Manila: Asian Development Bank.

Taylor, M. P. and L. Sarno (1997): “Capital Flows to Developing Countries: Long and Short-Term Determinants” *World Bank Economic Review* 11 (3).

UNCTAD (2000): Trade and Development Report.

Yoshitomi, M. and K. Ohno (1999): “Capital-Account Crisis and Credit Contraction” ADB Institute Working Paper 2 (May).

Yoshitomi, M. and S. Shirai (2000): “Technical Background Paper for Policy Recommendations for Preventing Another Capital Account Crisis.” Asian Development Bank Institute (July).

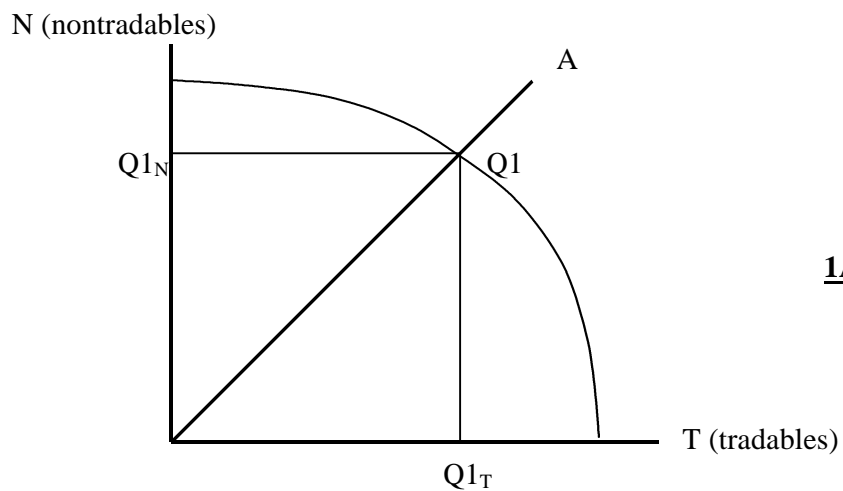
Table 1: Capital Flows to the Fice Affected Countries (\$ Billion)

	1995	1996	1997	1998	1999	2000F	2001F
Net private capital flows	53.87	67.41	-15.57	-28.24	2.9	-22.35	10.56
Net direct investment	8.81	9.83	9.78	10.35	13.05	9.07	9.04
Net portfolio investment	18.75	25.54	8.43	-8.16	12.83	13.19	3.25
Other net investment	26.31	32.04	-33.78	-30.43	-22.98	-44.61	-1.73
Net official flows	0.66	-6.13	15.65	19.45	-6.74	4.96	-2.08

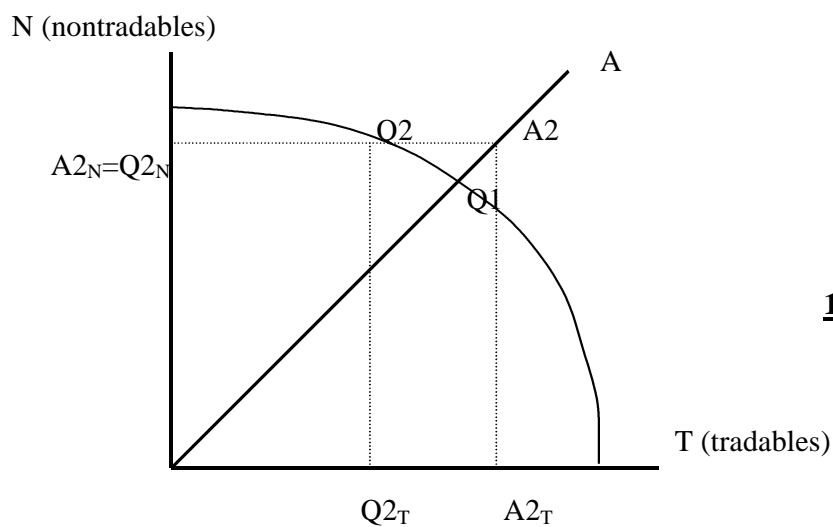
F = forecast

Source: IMF, World Economic Outlook, September 2000

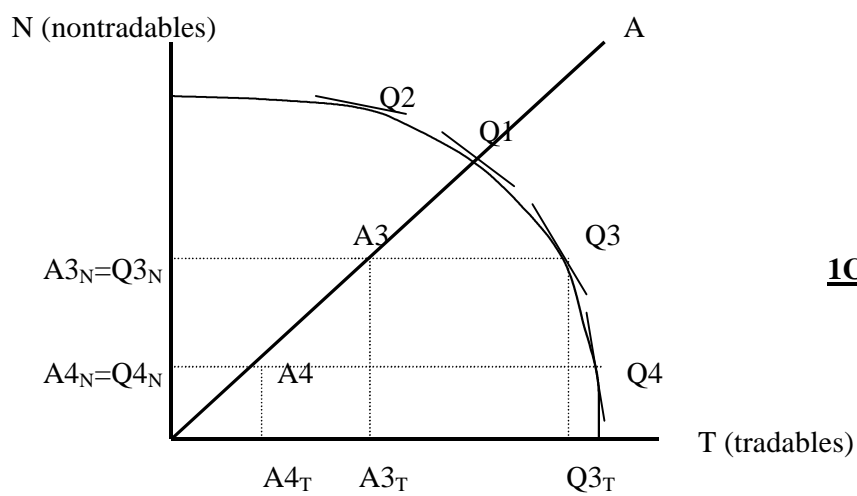
Figure 1. Production, Absorption, and the Real Exchange Rate



1A. Trade Balance

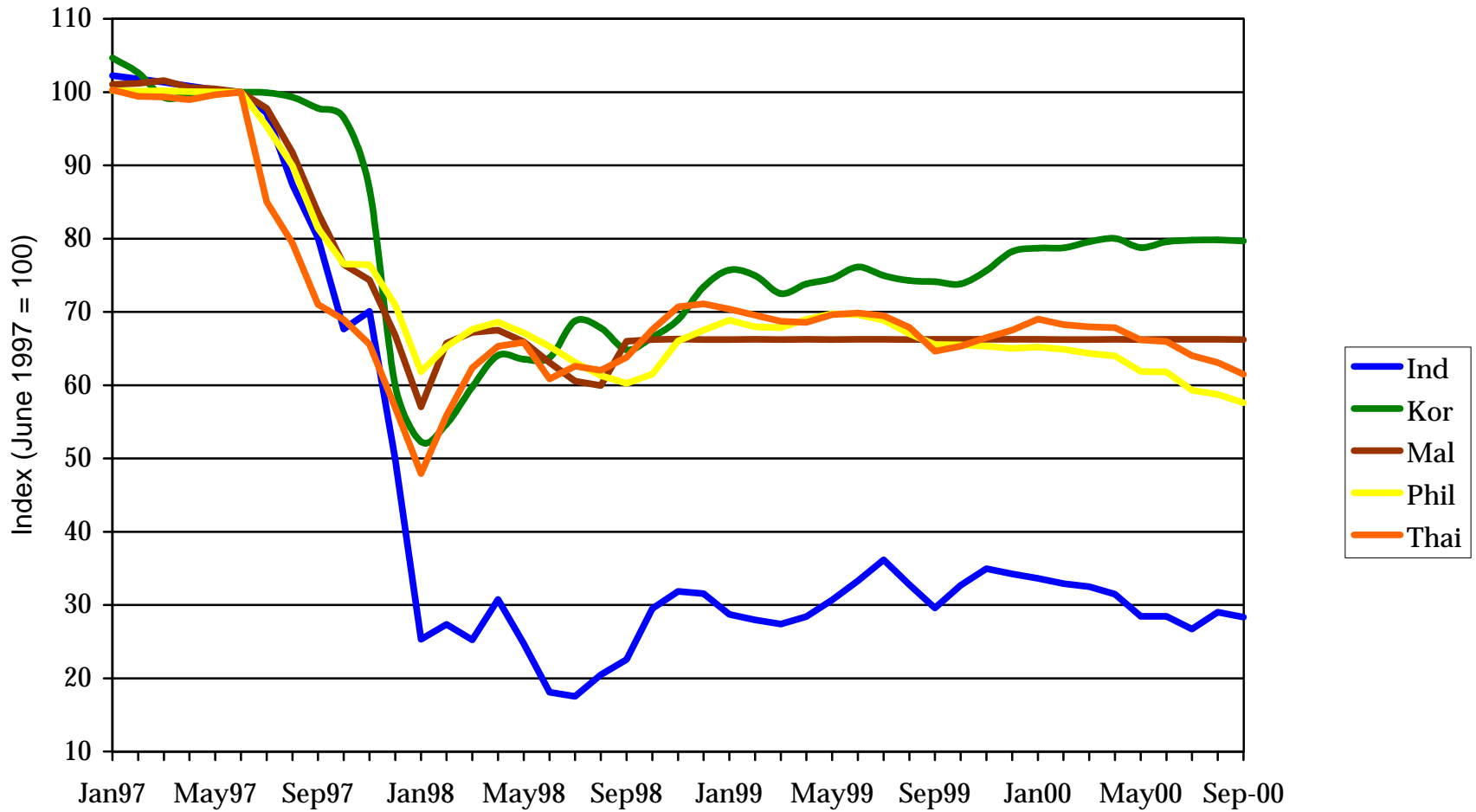


1B. Trade Deficit



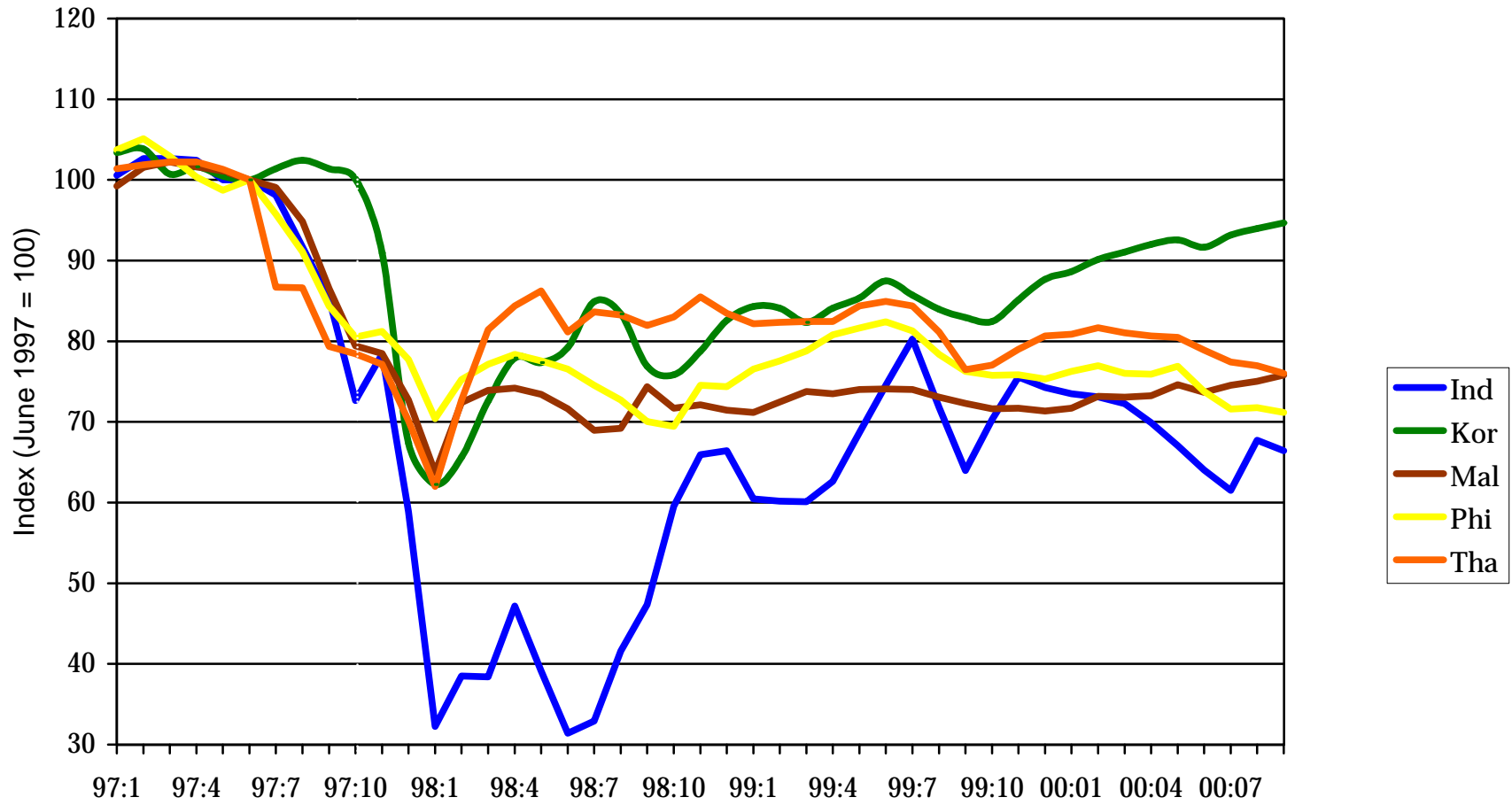
1C. Trade Surplus

**Figure 2: Average Exchange Rate, US Dollar to Local Currency
(June 1997=100)**



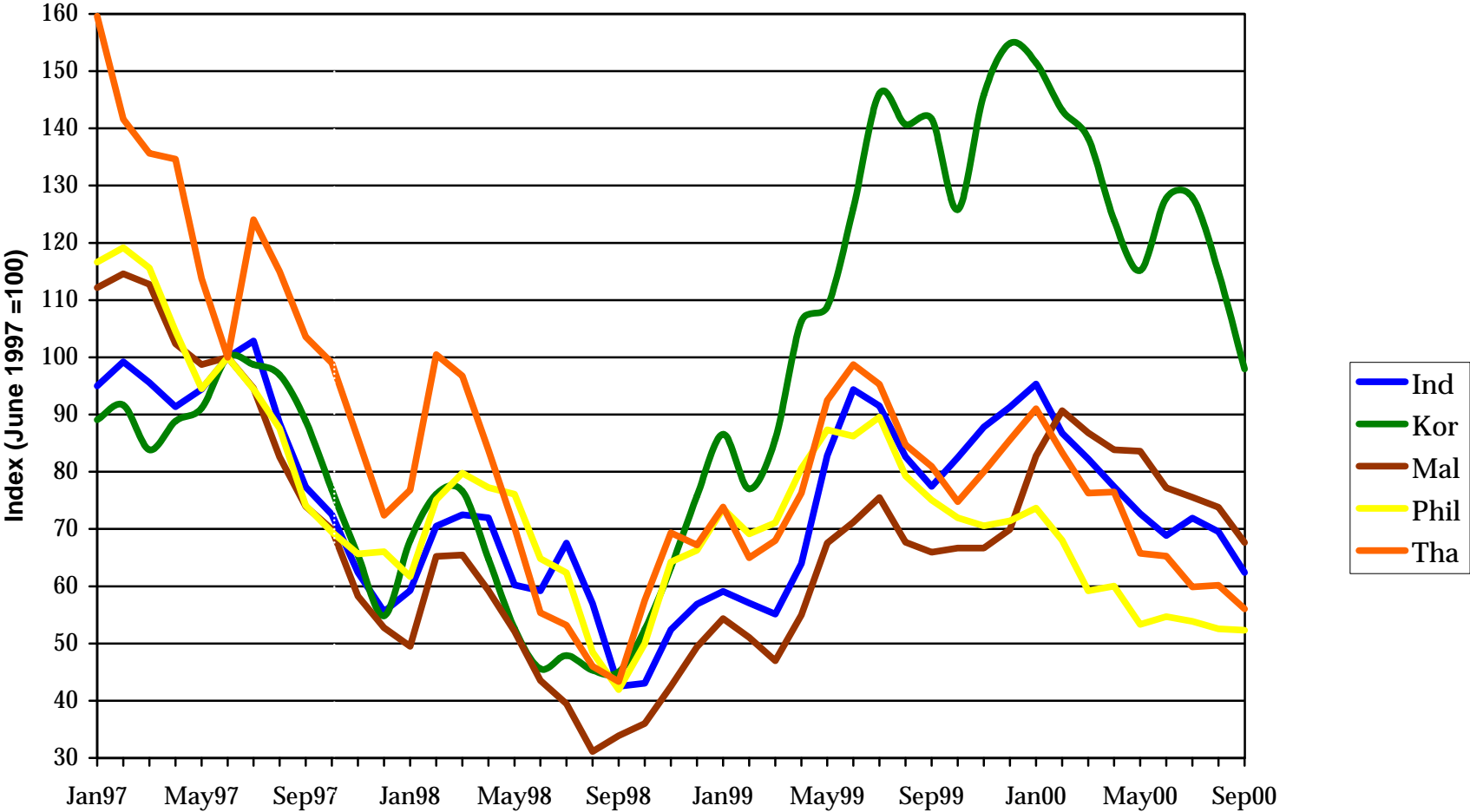
Source: ADB calculations based on data from Bloomberg

**Figure 3: Real Effective Exchange Rate Indices
(June 1997=100)**



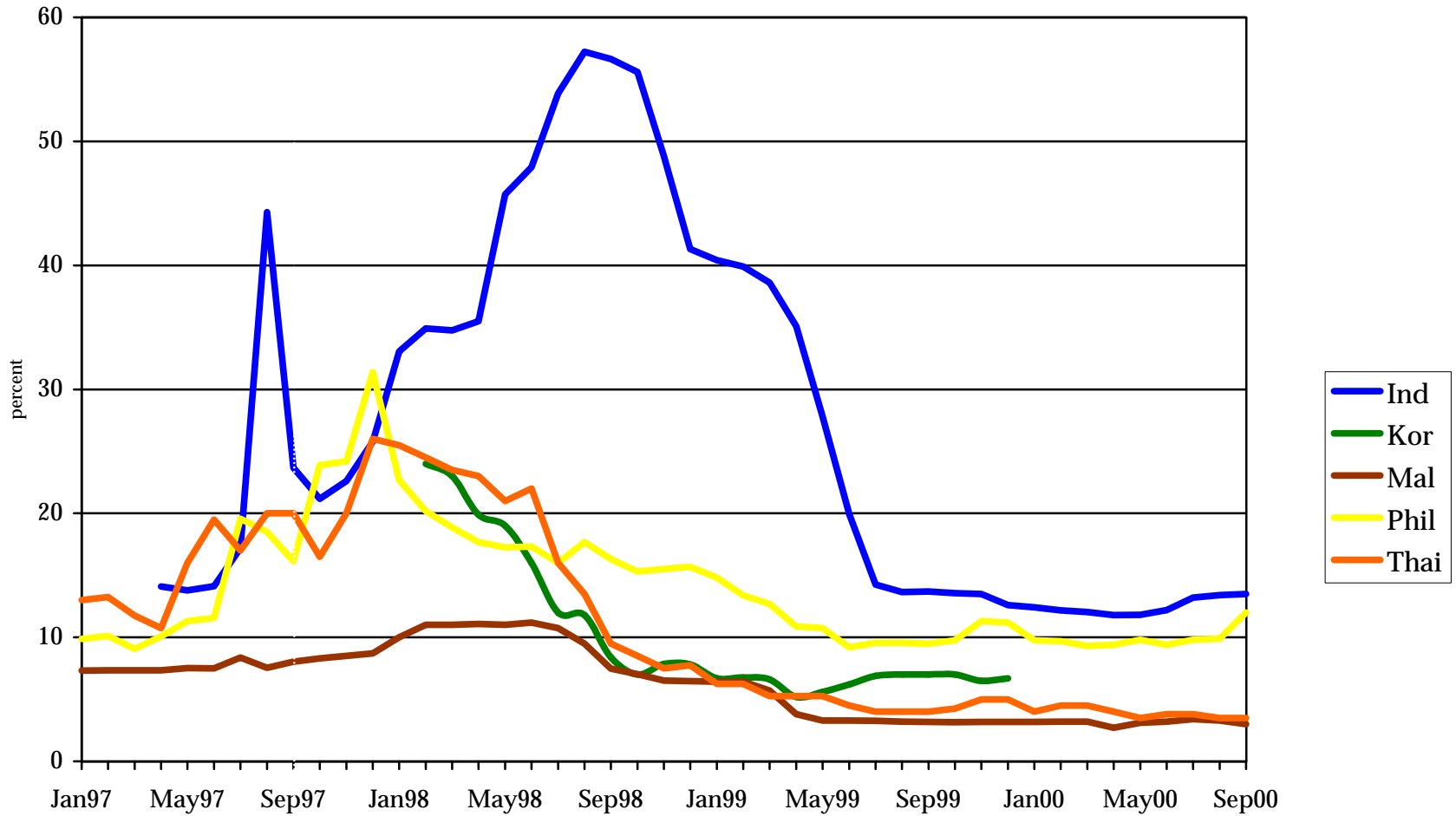
Source: JP Morgan

**Figure 4: Monthly Stock Price Index
(June 1997=100)**



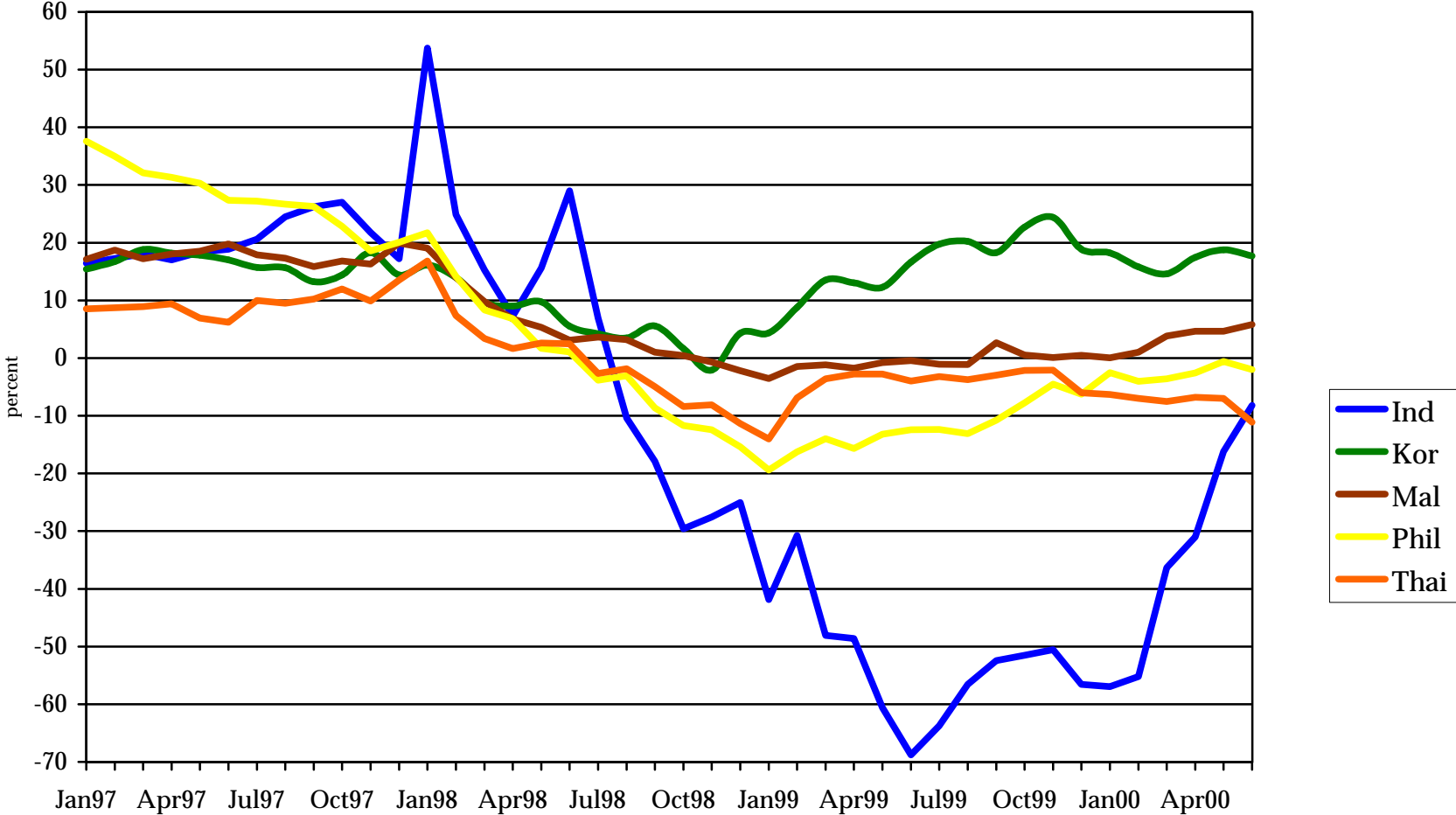
Source: ADB calculations based on data from Bloomberg

**Figure 5: 3- month Interbank Lending Rate
(end of period)**



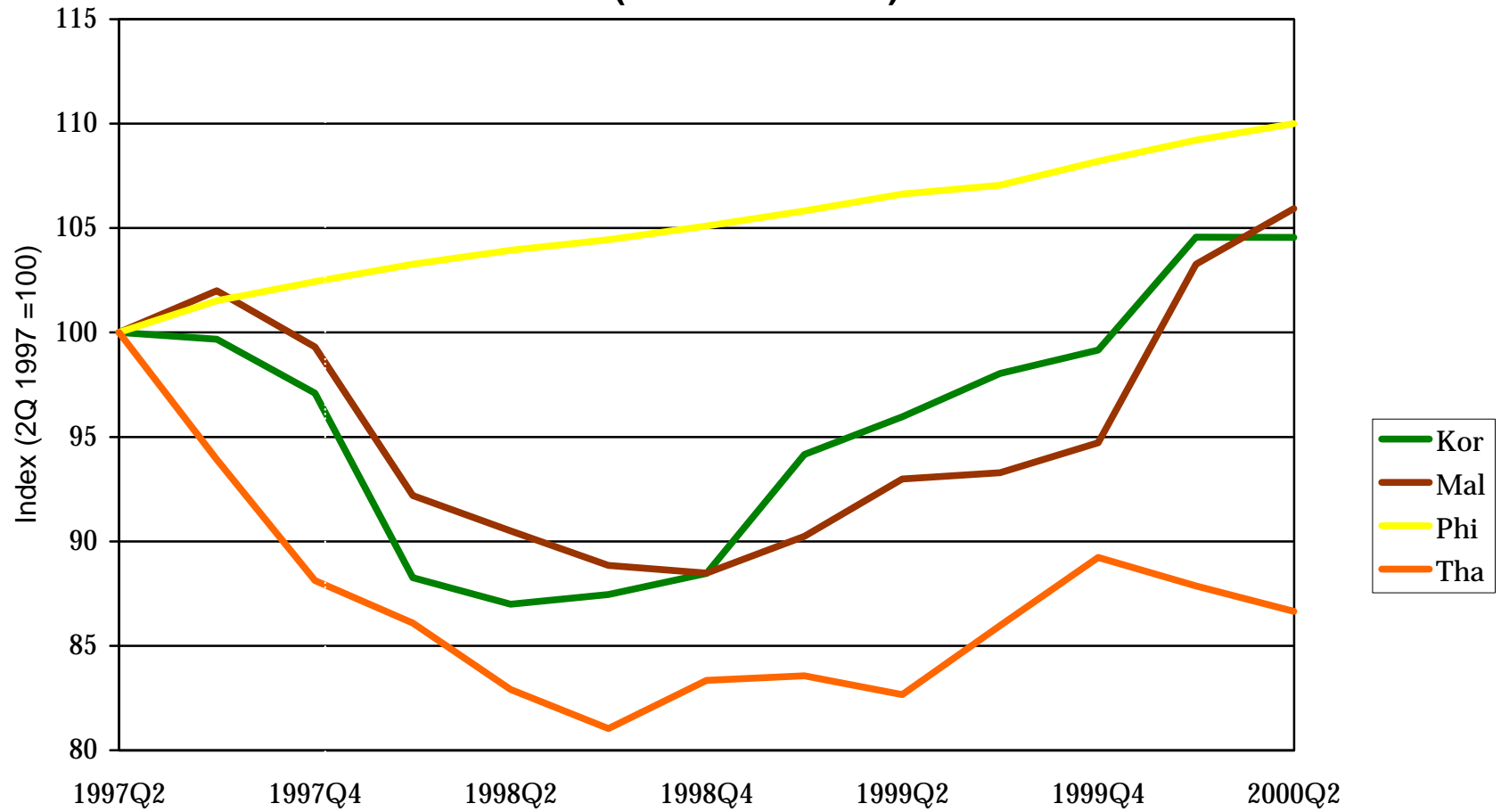
Source: Bloomberg and website of Bank Negara Malaysia

Figure 6: Real Bank Credit Growth



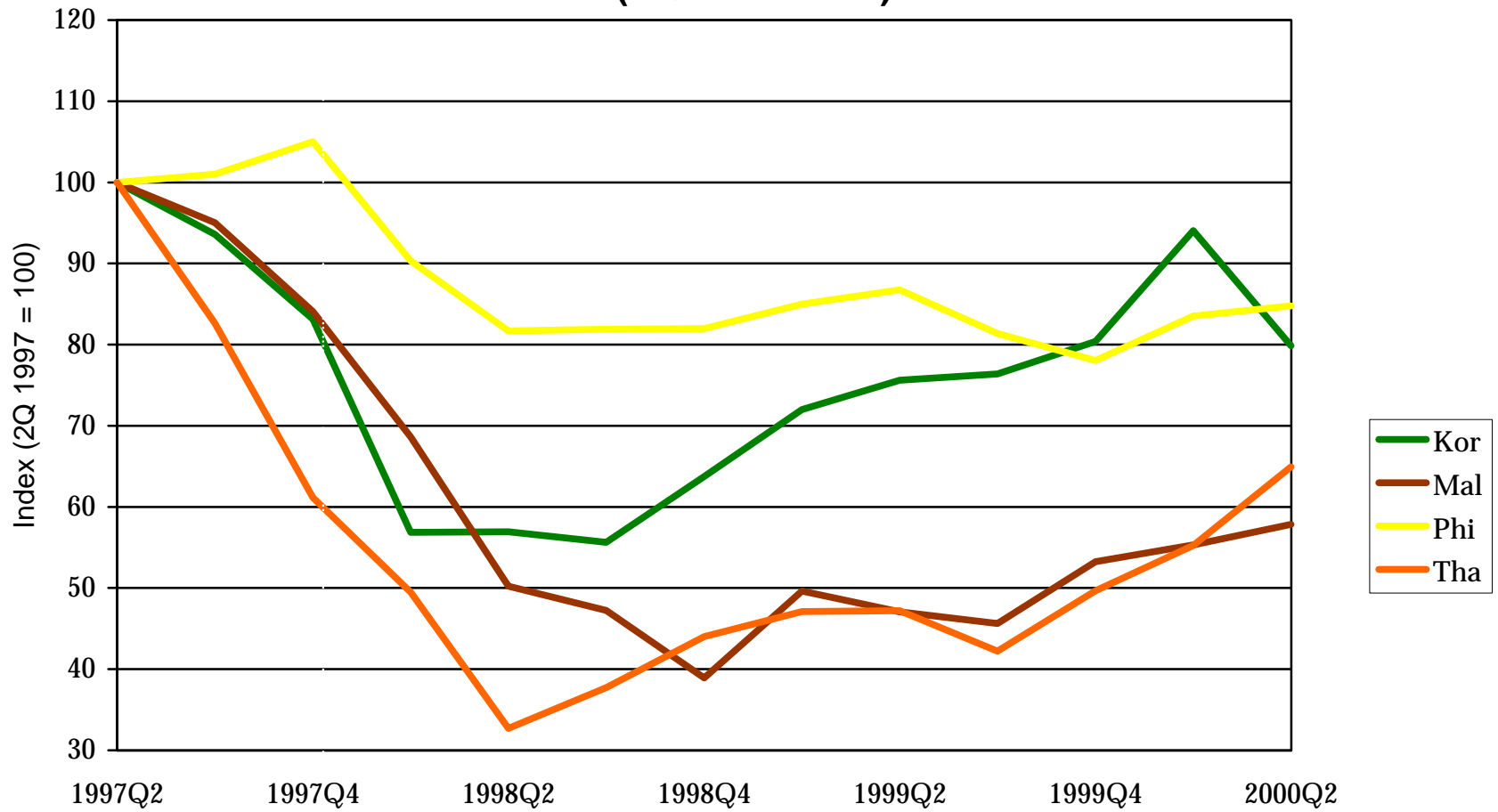
Source: IFS CD-ROM

**Figure 7: Real Private Consumption Index, seasonally adjusted
(2Q 1997 = 100)**



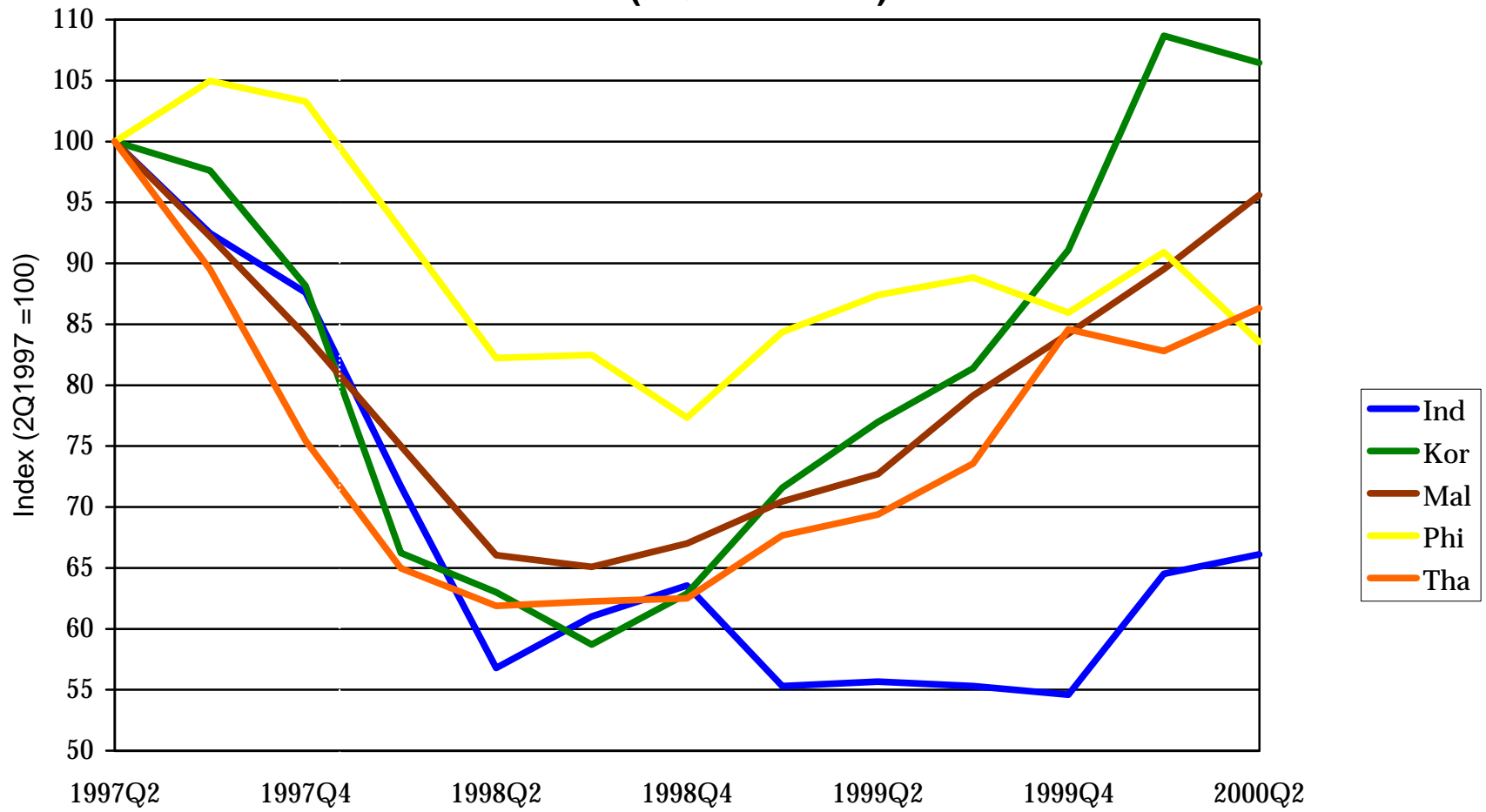
Source: country websites

**Figure 8: Gross Domestic Investment Index, seasonally adjusted
(2Q 1997 = 100)**



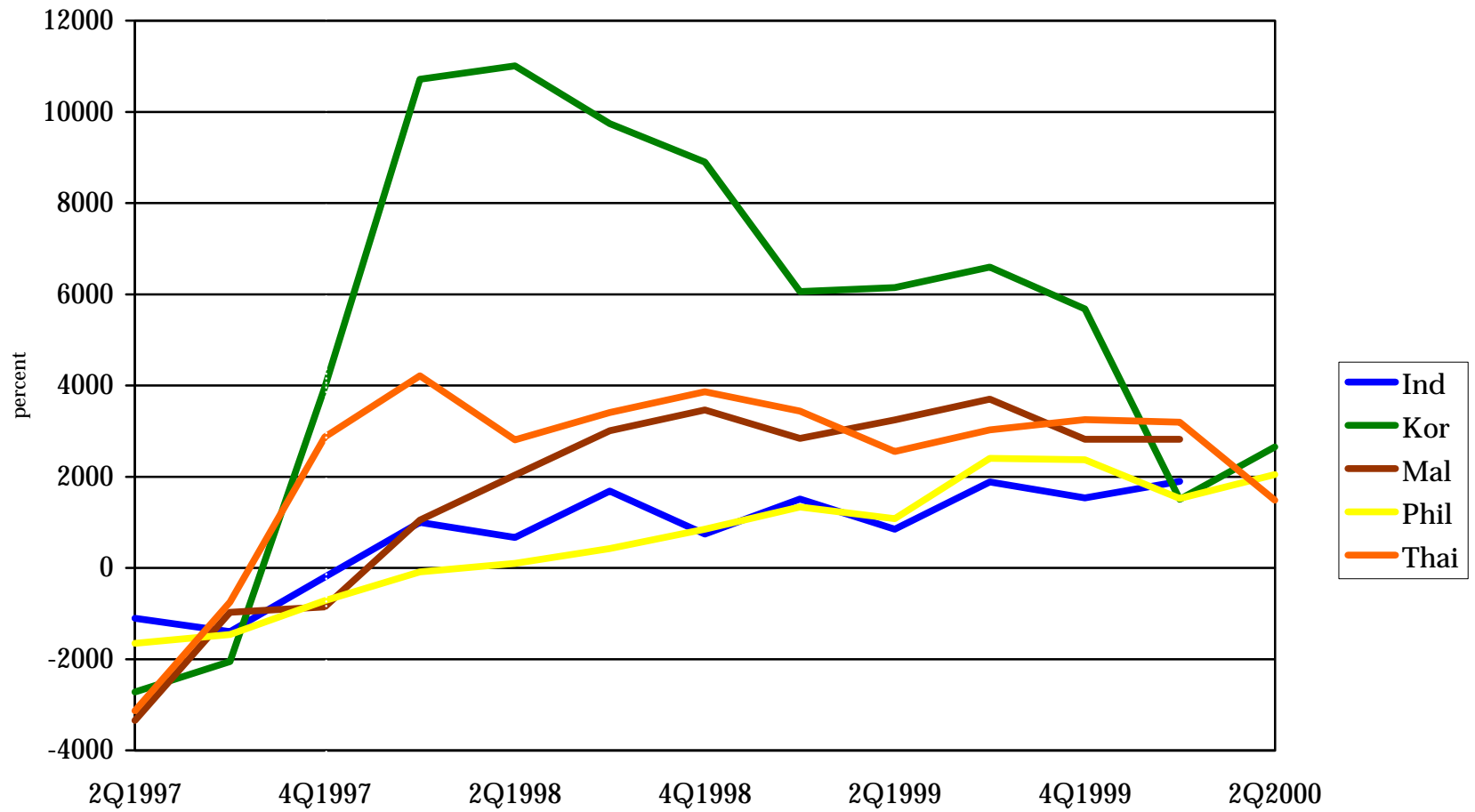
Source: country websites

**Figure 9: Merchandise Import Index, seasonally adjusted
(2Q 1997 =100)**



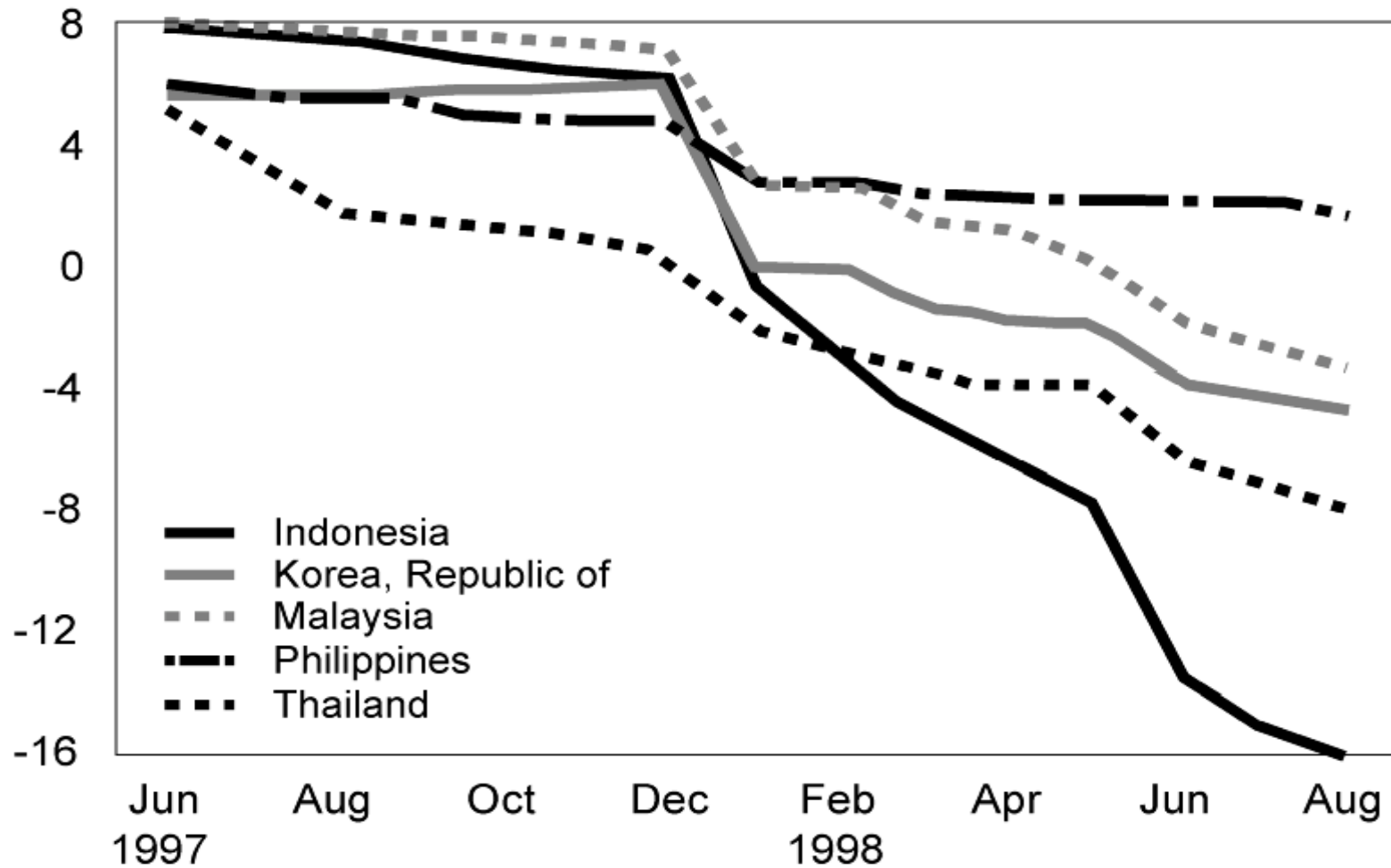
Source: country websites

**Figure 10: Current Account Balance
(in million USD)**



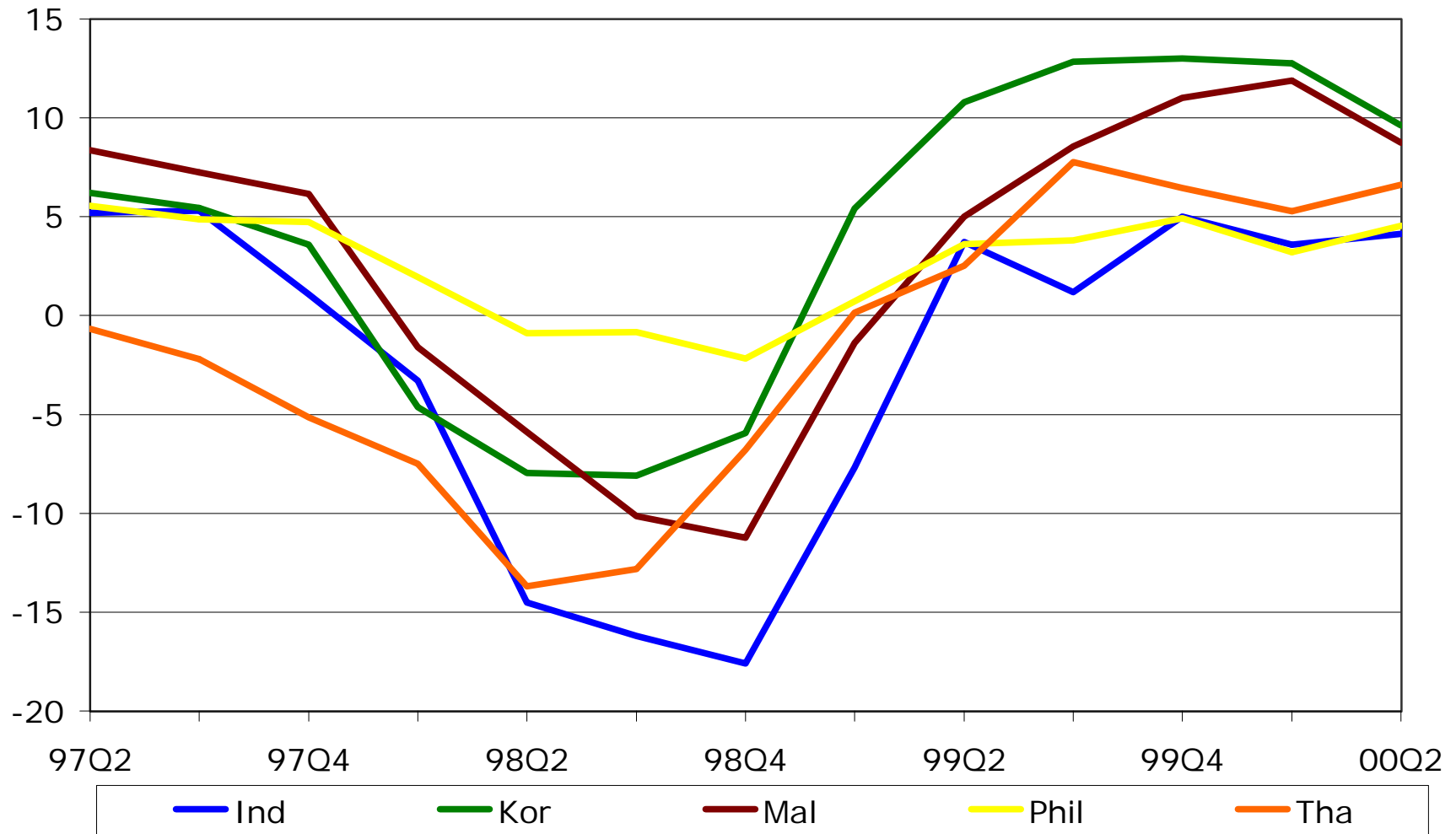
Source: country websites

Figure 11: Evolution of Consensus Forecast for 1998 Growth in East Asian Crisis Countries



Source: World Bank, Global Economic Prospects, 1998

Figure 12: Real GDP Growth (% , y-o-y)



Sources: country websites