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**Current Account Imbalances in ASEAN Countries: Are They a Problem?[1]**

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**Abstract**

Applying a consumption-smoothing model to five ASEAN countries reveals that excessive private consumption has not tended to characterize their widening external imbalances in recent years, except to a small degree in Indonesia and Malaysia. Beyond consumption smoothing, however, a number of factors influence the desirability of running large external deficits, including the level and composition of external liabilities, the flexibility of macroeconomic policies, and the health of banking systems. Even when the current account deficit appears sustainable, there is a case to reduce them in order to lower the risks arising from such factors.

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## SUMMARY

Since the beginning of the 1990s, current account imbalances in a number of ASEAN countries have widened, generating concern that policy measures may be required to avoid costly and destabilizing shifts in market sentiment.

This paper uses a model of optimal external borrowing and lending to estimate an actual time series of the optimal consumption-smoothing current account for five ASEAN countries: Indonesia, Malaysia, the Philippines, Singapore, and Thailand. The main prediction of the consumption-smoothing model is that the current account acts as a buffer to smooth consumption in the face of transitory shocks to national cash flow, defined as output net of investment and government expenditures. The time series of the optimal current account generated by the model serves as a benchmark against which to judge the actual data. The analysis suggests that excessive external borrowing for private consumption (defined as an actual deficit above the level generated by the model) has *not* tended to characterize the experience of any ASEAN country in recent years, except to a small degree in Indonesia and Malaysia. This contrasts with the findings from estimating a similar model for Mexico and other countries in Latin America, where the evidence of excessive consumption was much stronger.

The paper also discusses other factors that affect external sustainability and especially the *risks* of running large external deficits. The analysis highlights the roles of the level and composition of external liabilities; the flexibility of macroeconomic policies; the efficiency with which investment is used; and the health of banking and financial systems. The paper concludes that, even when the external position appears sustainable, there is a case to reduce current account deficits over time in order to minimize risks that may arise from such factors.

# I. INTRODUCTION

Since the beginning of the 1990s, current account imbalances in a number of ASEAN countries have widened considerably, generating concern in some quarters that policy measures may be required if costly and destabilizing shifts in market sentiment are to be avoided.[2] This case has been made with respect to both Malaysia and Thailand, whose deficits widened to over 8 percent of GNP in 1995. In Indonesia, where the external deficit, at about 4 percent of GDP in 1995, is significantly smaller than in Malaysia or Thailand, concerns have nevertheless been raised relating to the impact of the widening deficit on the country's external debt and debt service levels, which are significantly higher than elsewhere in the region (Table 1).[3] It is important to note that concern about the current account deficit in these countries comes alongside a more general awareness that several years of very rapid growth have absorbed whatever initial slack existed in domestic markets and that overheating may now have become a problem. Left unchecked, large external deficits combined with generalized overheating could increase vulnerability to external shocks and to policy reversals in the future.

How can one judge whether these countries' current account positions are a problem? *Prima facie*, of course, the fact that market participants may view them as such suggests that policy makers cannot afford to ignore them. However, beyond the market's view, what can economists say about the desirability of running large current account deficits (say over 4 or 5 percent of GDP) or, for that matter, large surpluses (Singapore's current account was in surplus to the tune of nearly one fifth of GDP in 1995)?

As the current account represents the rate at which a country accumulates or decumulates foreign assets, one approach to judging whether an external balance of given size is a problem or not is to see whether it is consistent with the assumption that all external debts will ultimately be repaid. This is the notion of *intertemporal solvency*. Intertemporal solvency, however, is a relatively weak criterion as far as giving warning of an emerging problem. The reason is that solvency requires only that, in the *very long run*, all debts be repaid. Since this is equivalent to saying that large trade deficits today will be offset by equally (in present value

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[2]See, for example, *The Economist*, November 4, 1995, page 39, on Malaysia's current account deficit, and *The Financial Times*, October 6, 1995, and *Reuters*, November 3, 1995, on Thailand's current account deficit. Reflecting concern about the size of Malaysia's and Thailand's external deficits, the Economist Intelligence Unit downgraded both countries' medium-term lending risk rating at the end of 1995. In May 1996, citing among other factors its high current account deficit, Moody's placed Thailand's sovereign ceiling ratings for short-term debt under review for a possible downgrade.

[3]Indonesia's relatively high debt service ratio reflects not only the accumulated external debt stock, but also the share of exports in GDP, which is significantly lower than elsewhere in the region. The Philippines is another ASEAN country with a high external debt ratio.

terms) large trade surpluses in some future period, a country can remain technically solvent even while running large external deficits as long as policies are adjusted as needed in the (possibly distant) future to bring about the required surpluses that enable debts to be repaid. Technically, intertemporal solvency imposes too *few* restrictions on the evolution of the current account and external debt over the medium term to be of much operational value in telling us when a country's external position warrants attention from policy makers.

Another, related, criterion is *sustainability* of a given path of external deficits. Sustainability adds on to the notion of solvency the idea that policies remain constant for the indefinite future. Thus, an external position is not sustainable if, under the assumption that policies do not change, the country violates its intertemporal solvency constraint. The problem with the sustainability concept is that what matters for the current account are people's *expectations* of future policies rather than the policies themselves.[4] These expectations are notoriously difficult to observe and measure, which makes the sustainability concept difficult to apply operationally.

In this paper, an alternative indicator of whether current account deficits are a problem is proposed, based on *a model of optimal borrowing and lending*. The model incorporates the requirement that the country remain intertemporally solvent, and the econometric procedure used to estimate it allows one to measure private expectations about future income growth, investment, and fiscal policy, which underly decisions of how much to save or consume in a given period. By capturing these expectations, the model is able to generate an actual time-series of the *optimal consumption-smoothing current account*, conditional on expected future values of all the exogenous and policy variables that private agents use in formulating their plans. This time-series of the optimal current account balance can serve as a benchmark against which to judge the evolution of the actual current account. If the latter deficit exceeds the optimal deficit generated by the model, this provides some indication of "over-borrowing" and hence of a current account position which may in fact be a problem.

Because the benchmark series is based on a model of *optimal* external borrowing, it is sometimes referred to below as the "optimal" current account balance, to distinguish it from the weaker notions of intertemporal solvency and sustainability discussed above. When the actual deficit exceeds the optimal level, it is said to be "excessive." Since the main element of behavior being modeled here is private consumption/saving, a situation of excessive deficit effectively amounts to excessive external borrowing for private consumption purposes.

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[4]This is particularly obvious when one recalls that the current account is the difference between saving and investment where the former depends upon, *inter alia*, expectations of future income, taxes, etc., while the latter depends upon, *inter alia*, expectations of future productivity growth and interest rates. It is also clear when one thinks of the current account as the sum of the trade and services accounts, where the former depends on relative prices and, hence, on the exchange rate. Since the latter is an asset price, it clearly is sensitive to expectations over a whole range of policy and other variables.

Of course, excessive private consumption (to be interpreted as consumption above the level consistent with utility maximization subject to lifetime resources or permanent income) need not be the only reason to be concerned about the current account. Other relevant factors would include the position of the public sector—i.e., the degree to which its balance reflects an unsustainable fiscal policy—and the allocation of investment—i.e., the extent to which investments are being committed to projects that maximize the economy's net productive wealth. Both factors—fiscal policy and the allocation of investment—are background data for the purposes of the formal model described below, i.e., they are part of the set of "forcing" variables that influence private consumption/saving decisions. As such, they constitute independent reasons—distinct from judgments relating to the consumption/saving decision—that influence one's view about the optimality of a given path of external deficits.

Even if the allocation of investment and the public and private saving positions are all sound so that *ex ante* the external balance appears optimal, unforeseen shocks—such as a change in investor sentiment, terms of trade deterioration, a slowdown in the rest of the world, or even "contagion effects" from other countries—may nevertheless prove the deficit to have been unsustainable *ex post*. A broader concept of optimality would therefore have regard not only to the paths of consumption, investment, and fiscal policy based on *expectations* about the future course of the exogenous variables, but also to the vulnerability of the current account to unexpected events. Policy makers may well seek to reduce a deficit that appears optimal *ex ante* if there are significant risks that policies will have to be adjusted sharply *ex post* in the event of unfavorable shocks or changes in market sentiment. The factors that bear on an assessment of risks would include both structural and macroeconomic characteristics of the economy such as the level of savings and investment; the openness to international trade; the level and composition of economic growth; the level and composition of external liabilities; the structure and health of the financial system; the flexibility of financial and exchange rate policies; the degree of over- or under-valuation of the currency; and the level of foreign exchange reserves.

This paper, then, proceeds in two stages. First, in Section II below, a model of optimal external borrowing and lending is laid out theoretically, while in Section III the main empirical results from applying the model to data for five ASEAN countries—Indonesia, Malaysia, the Philippines, Singapore, and Thailand—are presented and discussed. The discussion covers both the direct implications of the analytical framework in terms of identifying episodes of excessive private consumption, and more briefly, the other elements of optimality including the allocation of investment and the soundness of fiscal policy. In Section IV, a number of indicators that bear upon the vulnerability of the current account to shocks are discussed. The main conclusions are given in Section V.

## II. THE MODEL

The main building-block of the consumption-smoothing approach to current account determination is the permanent-income theory of consumption and saving. In a small open economy with access to international capital markets, the model implies that temporary

shocks—which by definition have larger effects on current resources than lifetime resources—should cause larger fluctuations in national saving and the current account than permanent shocks. The underlying shocks here could be productivity disturbances, changes in government spending, or fluctuations in investment.

While the principal focus of the model is the response of consumption and saving to shocks, the model is fully consistent with investment being optimally chosen to maximize the net productive wealth of the economy given the world interest rate and the investment technology. The model makes use of Fisherian separability, however, which implies that the investment decision may be treated as exogenous to the consumption/saving rule. Finally, the model's dual assumptions that the government has access to lump sum taxation to finance its expenditure, and chooses a spending and taxation path which results in intertemporal solvency, means that budgetary deficits will not matter for private behavior. Of course, government spending shocks will have real effects, and are therefore included among the forcing variables in the optimal current account model.

Consider then a representative consumer who maximizes the discounted value of utility

$$\sum_{t=0}^{\infty} \beta^t u(c_t) \tag{1}$$

subject to a sequence of budget constraints

$$b_t = (1+r)b_{t-1} + q_t - i_t - c_t - g_t \tag{2}$$

where $\beta$ is the discount factor, $c_t$ is consumption, $b_t$ is the (economy's) stock of foreign assets, r is the fixed world interest rate, $q_t$, $i_t$, and $g_t$ are GDP, investment, and government spending, respectively.[5]

With a view to empirical implementation, it is assumed that the utility function in (1) is quadratic. This enables one to obtain a closed form solution for the consumption function (by combining the first order condition with the budget constraint and the transversality

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[5]Owing to the Ricardian nature of the model, we directly substitute the government's dynamic budget constraint into the private sector's constraint, thereby eliminating lump-sum taxes and private debt from the latter, and introducing into (2) government spending (g) and (economy-wide) external debt (b). Finally, we can think of investment in (2) as having been chosen optimally (to equate the marginal product of capital to the world interest rate) so that everything on the right hand side (RHS) of (2) may be taken as exogenous to the consumption decision.

condition—or intertemporal solvency constraint).[6] In addition, the quadratic utility function implies certainty equivalence, namely that in the presence of uncertainty, consumption depends only on the *expected* present value of net income, and not on its variability. Specifically, the solution for consumption is simply:

$$c_t = \frac{r}{1+r} E_t \sum_{j=0}^{\infty} (1+r)^{-j} z_{t+j} + r b_{t-1} \tag{3}$$

where $z = q-i-g$ is referred to below as national cash flow (GDP net of investment and government expenditure). Thus, along the optimal path, consumption is proportional to the present value of national cash flow, rather than cash flow at any instant.[7] This is the essence of the consumption-smoothing model.

While consumption is equal to the annuity value of the expected future stream of national cash flow, saving (net of investment) is equal to (minus) the expected present value of future *changes* in national cash flow:

$$ca_t = -\sum_{j=1}^{\infty} (1+r)^{-j} E_t \Delta(q_{t+j} - i_{t+j} - g_{t+j}) \tag{4}$$

where $\Delta$ is the backward difference operator. Equation (4) summarizes the intertemporal model in a convenient way. Permanent shocks, which have no effect on expected changes in cash flow, leave the current account unaffected. Unfavorable temporary cash flow shocks—like a drought or an increase in current government spending—cause the expression on the right hand side of (4) to decrease, i.e., the current account to move into smaller surplus or greater deficit, and conversely in the case of favorable shocks. Thus, the current account acts as a buffer to smooth consumption in the presence of temporary disturbances.

The main problem with implementing (4) empirically is that the current account is equal to the present value of *expected*, rather than *actual*, declines in cash flow, and one typically does not know what information set agents use to form expectations of future cash flow. To get around this problem, the procedure used here adopts Campbell and Schiller's (1987) insight which rests on the fact that the current account itself reflects all information

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[6]This constraint requires that in the limit, the present value of external assets (or debt) held by the economy be zero, or put differently, that the stock of assets (or debt) not grow at a rate faster than the real interest rate.

[7]For simplicity, it is assumed in (3) that the rate of time preference is equal to the exogenous world real interest rate. When this is not the case, consumption may differ from permanent income according to the consumption-*tilting* motive. The empirical section discusses how to accommodate such behavior.

about the future course of cash flow.[8] Thus, by including the current account in the conditioning information set, it is *as if* one could actually observe the information set used by private agents in making forecasts of future cash flow.

To evaluate the expected present value term on the RHS of (4), a bivariate vector autoregression in the first difference of cash flow and the current account is estimated:

$$\begin{bmatrix} \Delta(q_t - i_t - g_t) \\ ca_t \end{bmatrix} = \begin{bmatrix} \psi_{11} & \psi_{12} \\ \psi_{21} & \psi_{22} \end{bmatrix} \begin{bmatrix} \Delta(q_{t-1} - i_{t-1} - g_{t-1}) \\ ca_{t-1} \end{bmatrix} + \varepsilon_t \tag{5}$$

which may be written more compactly as

$$x_t = \Psi x_{t-1} + \varepsilon_t \tag{6}$$

From (6), the $k$-step ahead expectation is simply

$$E_t\{x_{t+k}\} = \Psi^k x_t \tag{7}$$

and the expression for the optimal current account given by the right hand side of (4) is therefore given by

$$ca_t^* = -[1\ 0][\Psi/(1+r)][I - \Psi/(1+r)]^{-1} x_t \equiv \Gamma x_t \tag{8}$$

where $\Gamma$ is a two-element row vector of (nonlinear functions of the) VAR parameters. The above expression for the optimal current account (in terms of estimated VAR parameters and observable data) can be compared to the actual data on the current account to determine whether the deficits (or surpluses) have been excessive in a given period.

To implement the VAR, all data must be stationary. Since cash flow enters the VAR in first differences, the main issue concerns the current account. By construction, the consumption-smoothing current account given by (4) is a discounted sum of cash flow in first differences, and is therefore stationary. However, as alluded to previously, the current account may also contain a consumption-tilting component if the rate of interest differs from the rate of time preference. Since this consumption-tilting component is nonstationary (effectively it

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[8]This is similar to the notion that an asset price reflects all the available information that is useful in forecasting future earnings.

introduces a trend into the current account), it is purged from the actual data on the current account prior to VAR estimation.[9]

## III. EMPIRICAL RESULTS

The empirical analysis focuses on five ASEAN countries: Indonesia, Malaysia, the Philippines, Singapore, and Thailand.[10] To implement the model, national accounts data on gross national product (GNP), gross domestic product (GDP), private consumption, investment, and government consumption, are required. For all countries, the data source is the IMF's *International Financial Statistics* (IFS), updated as needed over the last several years to reflect any data revisions not included in the IFS. In all cases, the nominal national accounts data are deflated by the implicit GDP price deflator in order to obtain all real magnitudes on a consistent basis. As regards the sample period, in all cases the data end in 1995 and begin between 1960 and 1970.

### A. Tests and Goodness of Fit of the Model

The first order of business is to determine whether the simple consumption-smoothing model generates an optimal current account series that tracks—reasonably well—actual current account developments in the sample of countries. To do so, the parameter estimates from the VAR given by (5) and the transformation function given in (8) are used to produce the actual time series of the expected present value of future declines in cash flow, i.e., the optimal consumption-smoothing current account. As (8) makes clear, the latter depends only on observable data and nonlinear transformations of the estimated VAR parameters.

It is important to note that the expression in (8) is *not* a regression; one is not *estimating* the optimal current account using data on the actual current account and the first difference of national cash flow. Rather the formula for the optimal current account depends

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[9]As discussed in Ghosh and Ostry (1995b), the trend introduced by the consumption-tilting component in the particular case of quadratic utility is given by $\theta = \beta r(1+r)/[\beta(1+r)^2-1]$. Clearly, when the rates of time preference and interest are equal, $\theta = 1$ and there is no consumption-tilting trend in the current account. For $\theta < 1$, the country is consuming more than its permanent cash flow; that is, it is tilting consumption toward the present. For $\theta > 1$, the country is tilting consumption toward the future. In all cases except Singapore, the data suggest that the countries are tilting consumption toward the present, as is standard for developing countries more generally.

[10]For an analysis of the consumption-smoothing model for a sample of Latin American countries that experienced foreign exchange and equity market turbulence in the wake of the Mexican crisis, see Ghosh and Ostry (1995a). For an analysis of capital mobility issues in a large sample of developing countries using the consumption-smoothing model, see Ghosh and Ostry (1995b).

on the estimated weights (determined in the VAR estimation) on cash flow and the current account (the $\Gamma$'s in equation (8)). In some cases, the weight on cash flow will be significantly different from zero while that on the current account will be significantly different from unity, in which cases the model will perform badly.[11]

There are a number of different ways of gauging the model's performance. Perhaps the simplest is to see how correlated are the actual and optimal current account series generated by the model. The first column of Table 1 provides this information. As can be seen, the correlations are generally high, in four of the five cases above 90 percent. The high degree of correlation between the two series is also evident from the top panels of Charts 1–5, which plot the actual and optimal current account series (in percent of GDP). The optimal (dashed) line tracks the actual line very well, including at turning points.

A more formal test rests on the stringent time series properties of the model. According to equation (8), the actual current account series will be identically equal to the optimal series if the first element of the $\Gamma$ vector (the coefficient on the first difference of cash flow) is zero and the second element of the $\Gamma$ vector is unity. Thus, the null hypothesis that the two series are the same can be tested once the VAR parameters, their nonlinear functions—the $\Gamma$'s—and the standard errors of the $\Gamma$'s, have been estimated. The second column of Table 1 provides the results of the Wald test of the model (i.e., the Wald test for the hypothesis that actual and optimal current account series are identical, or equivalently that $\Gamma = [0\ 1]$). As can be seen, in three of the five cases, the null hypothesis that the two time series are identical is not rejected statistically. Nevertheless, even in the cases of Singapore and Thailand where the model is rejected statistically, the elements of the $\Gamma$ vector are close to their theoretical values and the actual and optimal series are highly correlated, as is apparent from the charts. For this reason, it is argued that the model offers potentially useful insights into the recent behavior of the current account in these countries as well, even though the stringent time-series properties of the model are rejected in these two cases.

## B.  Discussion

How should these results be interpreted? On the whole, the model appears to work well: there is a high degree of correlation between the predicted and actual current account series, and in three of the five cases, the most stringent implication of the model—that the two

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[11]In Ghosh and Ostry (1995b), the authors found that the model was rejected for about one third of the countries in the sample of 45 developing countries.

series are the same—cannot be rejected statistically.[12] Expectations of future income growth appear to be an (economically and statistically) significant determinant of current account behavior in the sample of countries.

There are (at least) two issues as far as the interpretation of the results is concerned. The first is how does one interpret the finding that optimal and actual current account positions are, in most cases, so highly correlated? Second, what is the interpretation of *deviations* between the two time-series? With respect to the first question, recall that the consumption-smoothing model predicts that a country's current account deficit should rise whenever the private sector receives information that causes it to revise upwards its expectations of the growth rate of national cash flow. Such revisions could be related to favorable news about productivity growth, an investment boom, or fiscal consolidation, for example.

It is indeed noteworthy that developments in a number of ASEAN countries (for example, Malaysia, the Philippines, and Thailand) which undertook significant macroeconomic stabilization and structural reforms in the 1980s, subsequently involved sizable deteriorations in external current account positions in the late 1980s-early 1990s. From the point of view of the model, this deterioration in the actual external position is well captured by the improvement in expected national cash flow (the "optimal"—dashed line—in the charts). In these cases, all three factors, productivity improvements, sizable increases in investment, and fiscal consolidation, may have played some part in the change in the private sector's expectations.[13] In particular, though, the sharp increase in investment, financed both by increased domestic saving but also, to a significant degree by a surge in net capital inflows from abroad, is certainly consistent with the sharp deterioration in (both optimal and actual) current account positions in a number of ASEAN countries in the early 1990s.[14]

With regard to the second question, namely how one interprets deviations between the optimal and actual current account positions, the first point to be made is that such deviations

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[12]There are other possible criteria by which the model's performance may be judged. These include hypothesis tests on the individual elements of the $\Gamma$ vector, and equality-of-variance tests between the actual and optimal current account series. As regards this last criterion, it may be noted that the optimal current account series is not always less variable than the actual series. As shown in Ghosh and Ostry (1995b), for some developing countries the optimal series is less variable than the actual series, while for others the opposite is true.

[13]The model does not distinguish between the different components of national cash flow, i.e., GDP, investment, and government expenditure.

[14]Some of the countries in the sample also took steps to correct exchange rate overvaluation in the early mid-1980s, which may have contributed to the revisions in private expectations of national cash flow that lie behind the deterioration in external current account positions.

are not an indictment of the underlying consumption-smoothing approach, since no model is expected to fit perfectly. Moreover, as has already been seen, in three of the five countries in the sample, the deviations are not jointly statistically significant. What, then, can one say about the deviations? Whether or not the model is rejected *statistically*, the deviations may have an interesting *economic* interpretation. Since the model is effectively capturing optimal consumption/saving behavior, given expectations about *inter alia* government expenditure and investment, deviations between the actual and optimal current account carry the interpretation of excessive borrowing for consumption relative to what would be predicted by the permanent income hypothesis. Of course, this is but one indicator that may be used to judge whether an overall current account position is problematic (some others are discussed below), but it is nevertheless an important one, as excessive private sector borrowing for consumption purposes has been argued to have been a factor underlying the large current account deficits of a number of Latin American countries in the wake of the Mexican crisis.[15]

What do the results tell us about the degree to which excessive private consumption is a factor behind widening external imbalances in ASEAN countries? First, it bears noting that in the case of Singapore, the issue is not one of large current account deficits, but rather of large surpluses, which in 1995 amounted to about 20 percent of GDP. While Singapore was running substantial current account deficits in the 1970s and early 1980s, reflecting the very strong growth in investment as industrialization was gaining momentum, the increase in domestic saving eventually overwhelmed the investment rise, leading to large external surpluses in the 1990s. In the late 1980s, moreover, there appears to be some evidence that saving reached levels that go beyond what would be required to support full consumption smoothing. This should be qualified, however, to the degree that special factors not captured by the simple representative agent model assumed here, notably demographics, would help to justify saving levels over and above those predicted by the consumption-smoothing hypothesis.[16]

Apart from Singapore, the remaining countries in the sample have been running current account deficits in recent years. Do these deficits have an element of excessive consumption? In the case of the Philippines, the answer is negative, as the actual and optimal current account deficits are extremely close to one another, as seen in Chart 3 and the

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[15]Ghosh and Ostry (1995a) argue, on the basis of a consumption-smoothing model, that excessive private consumption was indeed a significant factor in the current account positions of a number of Latin American countries in the early 1990s, including Mexico.

[16]The substantial decrease in the dependency ratio has been suggested as an important explanatory factor in Singapore's saving performance: see Husain (1995). Clearly, a *representative agent* framework, such as the one used here, is not suitable for analyzing the role of demographics in saving or current account behavior.

statistical results reported in Table 1.[17] Turning to Thailand, where the model does not fit very well, it is clear that in recent years, the actual current account deficit has been *smaller* than the deficit predicted by the consumption-smoothing model. This difference, which has been substantial since 1991 (see Chart 5), reflects excessive private saving rather than excessive consumption.[18] To interpret this finding, it bears recalling that the appropriate response to an investment boom—according to the model—is a decline in private saving as consumers borrow against the future income that current investments are expected to yield. Since the deterioration in Thailand's current account position in the early 1990s reflected mostly an increase in investment spending (imports of capital goods rose sharply) that was partially offset by an *increase* in domestic saving, the resulting current account deficit is assessed by the model to have been less than warranted on the basis of consumption-smoothing considerations alone.[19]

The picture is different in the case of Malaysia, where there is some evidence of excessive private consumption in the most recent period. In 1995, for example, Malaysia appears to have been running a current account deficit that was about 1 percent of GDP larger than warranted on the basis of consumption-smoothing considerations. Moreover, as Malaysia's current account position is not expected to improve significantly in 1996, with at least part of the deficit being attributable to sizable purchases of consumer goods (including durables) and a surge in construction activity (part of which may not contribute to future growth in national cash flow), it is possible that this degree of excessive consumption will persist in 1996. Finally, in Indonesia's case, a degree of excessive consumer borrowing, which is estimated to have amounted to about 1/2 percent of GDP at various times in the late 1980s and early 1990s, re-emerged again toward the end of the sample period, so that the current

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[17]There appear to be significant differences between the national accounts and balance of payments statistics for the Philippines over the past few years, as far as the current account is concerned. As discussed above, all data in this paper are on a national accounts basis.

[18]By contrast, the opposite is true in the late 1980s-early 1990s, when the surging current account deficit *is* found to possess an element of excessive borrowing for consumption.

[19]While the increase in foreign saving (and net capital inflows) in Thailand in the recent period appears to have been justified by the fundamentals of the consumption-smoothing model, other factors, discussed in the next section, also bear on the issue of whether the deficit at present warrants attention by policy makers.

account deficit—about 4 percent of GDP in 1995[20]—is assessed by the model to have been nearly 1/2 percent of GDP larger than justified by consumption-smoothing considerations. In addition, qualitative evidence over the past several quarters suggests that consumption and property-related investment have played a relatively large part in domestic demand growth, suggesting that this degree of excessive consumption may have persisted.

What, then, can we conclude about the optimality/sustainability of current account deficits in ASEAN countries? First, on the whole there is little evidence of excessive private consumption underlying external deficits in any of the countries in the sample, except, to a small degree, in Indonesia and Malaysia. The deficits in Indonesia, Malaysia, and Thailand, moreover, reflect mainly high private investment which has overwhelmed a strong private saving performance, rather than weak domestic savings. Judging from the experience of some other countries in the region, the resulting external deficits would be expected to narrow over the medium term, as the relatively high rates of return on public and private investment moderate alongside capital deepening and improvements in infrastructure, and the initial impact of financial liberalization on lifetime consumption and saving patterns (which may be spread out over a number of years) dissipates, leading to a rebound in household saving rates. Such a scenario, in fact, seems to broadly match the experience of countries in the region that industrialized relatively early. In Singapore, for example, investment rose very sharply in the initial stages of industrialization (as it is currently doing in Malaysia and Thailand), but then reached a plateau. Savings, on the other hand, rose gradually at first, a period during which Singapore experienced large external deficits. Over time, however, the steady rise in the saving rate was sufficient to close the investment-savings gap, eventually producing the relatively large external surpluses that Singapore has had over the past few years. This being said, however, to the degree that investment-saving gaps are likely to remain large over the next 2–3 years (as is currently projected for several countries in the sample), it may be prudent for financial policies to seek to raise the level of domestic saving in the economy, at least temporarily.[21] Not to do so might give scope for misinterpretation on the part of markets, and to possible destabilizing capital flows.

Judgments about sustainability will also be affected by the fiscal policies underlying external deficits. In this regard, fiscal balances in all the countries in the sample are either near

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[20]The Indonesian national accounts show a much larger current account deficit in 1995 than the balance of payments, apparently reflecting a very large contribution of stockbuilding to GDP growth in that year. The national accounts figures for stockbuilding were scaled down to bring the current account deficit on a national accounts basis to close to the deficit on a balance of payments basis, which is thought to be more accurate.

[21]With many of the countries in the sample contemplating reforms aimed at boosting the private saving rate over the medium term, one avenue to increase savings in the near term would be to target a larger fiscal surplus until measures to boost private saving are both in place and showing demonstrable results.

balance or in surplus: the external deficits do not, therefore, appear to be the result of an unsustainable fiscal policy. Two potential exceptions are the Philippines and Indonesia. In the former, the relatively low national saving rate stems mainly from weaknesses in the fiscal position, which in turn reflects the large stock of government debt (70 percent of GDP in 1994). Fiscal consolidation is therefore an important medium-term objective in the Philippines, the achievement of which would enhance external sustainability, while reducing constraints on the financing of investment and medium-term growth.[22] In Indonesia, which also has a relatively high debt ratio, fiscal consolidation should also be viewed as a worthwhile medium-term objective.[23]

In many countries in the sample, there is a medium-term target of broad balance in the public sector's accounts. It bears mentioning that movements in public sector balances may be expected to have an impact on the external current account, provided Ricardian equivalence does not hold. Countries with large fiscal and external surpluses (e.g., Singapore) may see their external surpluses decline substantially if plans to cut taxes while maintaining the level of public expenditures are realized. In this regard, there is some evidence that the extent to which Ricardian equivalence holds depends upon *the level of public debt*, with relatively high levels of debt tending to favor full offset of changes in public saving. An implication might be that, for a country such as the Philippines, fiscal consolidation would be likely to generate smaller improvements in the external current account than in some other countries in the sample, where public debt levels are smaller. In such countries, fiscal consolidation would be a relatively effective tool for reducing external imbalances.

In addition to the level of savings and investment, the *allocation* of investment is also clearly important for assessing current account sustainability. For example, low export growth could signal that investment is inward looking, not generating foreign exchange and, possibly, not efficient. In this regard, the strong performance of exports in all three countries suggests that investments are generally being channeled efficiently, although the shift in the composition of investment to infrastructure suggests that the payoff period may increase and the export intensity of investment may decline over the next several years. More generally, however, the allocation of investment (as well as the level) is likely to have improved as a result of the elimination of exchange rate overvaluation in the early mid-1980s.[24] In addition, the countries under consideration here have relatively open trading systems which will help to

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[22]See Gerson and Nellor (1996).

[23]See Bascand and Razin (1996).

[24]This contrasts with, for example, Chile's experience over the 1978–82 period, where the external crisis had as one of its main proximate causes significant overvaluation of the peso, or the Mexican experience in 1979–81 and 1994, where significant real appreciations of the peso (not justified by fundamentals) occurred in the periods leading up to the ultimate crises: see Milesi-Ferretti and Razin (1995) for an examination of these episodes. See Montiel (1996) for a discussion of equilibrium real exchange rates in ASEAN countries.

ensure that the allocation of private investment is made largely according to "undistorted" world prices. The relative openness of these economies, together with the relatively liberal trade and investment regimes in place, suggest that the allocation of investment is likely to be efficient.

While the evidence—both the predictions of the consumption-smoothing model and the qualitative indicators discussed above—in favor of sustainability is therefore relatively strong, judgments about the appropriate policy response will also depend upon the risks associated with widening external deficits in the event of unfavorable shocks. The next section discusses some of the main factors that affect these risks and how they apply to the countries in the sample.

## IV. BEYOND CONSUMPTION SMOOTHING: FACTORS AFFECTING THE RISKINESS OF EXTERNAL DEFICITS

In the previous section, a simple model of optimal borrowing and lending based on permanent income theory and intertemporal solvency was used to evaluate recent current account behavior in five ASEAN countries. The empirical results suggested that most of the deterioration in the current account positions of a number of ASEAN countries could not be attributed to excessive (in light of the benchmark provided by the consumption-smoothing model) private borrowing for consumption. By way of comparison, Ghosh and Ostry (1995a) looked at recent current account behavior in some Latin American countries, and found that the element of excessive consumption (again, based on the consumption-smoothing model) was much more pronounced in Mexico and some neighboring countries in the early 1990s than it was found to have been in *any* of the ASEAN countries considered in the previous section.

Apart from optimality/sustainability, what factors can help to assess the *risks* associated with running large external deficits? One important factor relates to the *level and composition of external liabilities*. A large external debt ratio implies a correspondingly large steady-state net resource transfer (trade surplus) to ensure that the intertemporal solvency constraint is met. In extreme cases, the implied resource transfer may be viewed as simply too large, increasing the risk of default and raising the probability of a reversal of capital inflows. The composition of external liabilities is also clearly important, however. The risks associated with an external deficit of given size are likely to depend on the maturity structure and currency composition of external debt, as well as on the split between debt and equity financing, and within equity financing, between portfolio and direct investment. In principle, equity financing allows asset price adjustments to absorb at least part of negative shocks, so that part of the burden is borne by foreign investors. In contrast, in the case of foreign currency debt financing, the country itself bears most of the burden, provided it does not default. The structure of equity and debt liabilities is also an important determinant of vulnerability to shocks. Within equity investment, portfolio investment is more volatile than foreign direct investment. For debt financing, risks are increased by short term maturities, a bunching of debt redemption, foreign currency denomination, and variable interest rates.

A second factor relates to the level of *saving and investment* in the economy. A high rate of national saving implies, other things equal, a high investment rate, and hence that more resources are being devoted to enlarging the future productive potential of the economy. High savings and investment act as a form of commitment to higher output in the future, raising the perceived ability to service and reduce external debt. Apart from high investment, a strong rate of total factor productivity growth signals that the investment is being used efficiently, and that economic growth will be sustained.[25]

A third factor relates to *openness and trade*. Countries which are very open—i.e., the share of exports or trade in GDP is large—can service debts more easily, because debt service absorbs a lower fraction of total exports. Thus, the effect of a shock on imports or domestic production is lower, *ceteris paribus*, than for low-export countries. The cost of default is also higher for a more open economy—it has more to lose—and the domestic constituency to avoid trade disruptions will be stronger. Against this, however, more open economies may be more vulnerable to external shocks, especially if they have a narrow export base.

A fourth factor relates to the health of the *financial system*. Directed credit policies, inadequate banking supervision, and poor monitoring of bank portfolios can all contribute to raising the risks associated with large external deficits, both by increasing vulnerability to external shocks and by constraining policy flexibility.[26] Weaknesses in the banking system—which is the predominant source of financing in most developing countries—are not only costly because of their wider repercussions on the real sector, but also because they may impair the effectiveness of monetary policy. Thus, when macroeconomic stabilization or the need to preserve external confidence call for monetary policy to be tightened, concern about the effect of higher interest rates and reduced liquidity on banks may delay policy action, and thereby exacerbate the risk of sudden reversal of capital flows, which may precipitate a more serious banking crisis. The effects of banking sector difficulties in developing countries can be particularly pervasive because their financial systems tend to be dominated to a larger extent than in industrial countries by banks.

How do these factors relate to the experience of the ASEAN countries in the sample? Table 2 provides a number of key indicators for selected countries. As can be seen, total external debt as a percent of exports of goods and services in the ASEAN countries is highest in Indonesia, followed by the Philippines, Thailand, and Malaysia. The relatively high debt ratio in Indonesia reflects both the level of external liabilities—which is higher than elsewhere in the region—as well as the small share of exports in the economy; by comparison,

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[25]For an analysis of the determinants of growth in ASEAN countries, see Sarel (1996).

[26]The health of the financial system is not the only factor constraining policy flexibility in some ASEAN countries. In a number of countries, the existence of substantial fiscal surpluses implies that the scope to tighten fiscal policies is limited in practice. In addition, the exchange rate regime limits the autonomy of monetary policy in a number of countries.

Malaysia's very low debt ratio reflects, in addition to its lower debt level, a high degree of openness.[27] The ranking of debt service ratios is similar.[28] By way of comparison, there is a qualitative difference between the ASEAN countries and the Latin American countries shown in Table 2 where, despite lower external deficits (except in Mexico's case), debt and debt service ratios are much larger, reflecting mainly the lower degree of openness of these economies.

Apart from debt levels, the *composition* of debt also varies widely across the countries in the sample. Within the ASEAN region, short-term debt is highest in Thailand, followed by the Philippines, Indonesia, and Malaysia. This ranking reflects the very different mix of capital inflows in these countries over the past several years. While Malaysia's capital account has been consistently characterized by large net inflows of foreign direct investment, the share of medium- and long-term inflows in Thailand's total inflows has fallen steadily since the late 1980s.[29] Although in Malaysia net inflows of private long-term capital continued to exceed the current account deficit through 1995 (notwithstanding the increased volatility in short-term flows in 1992–94), reliance on short-term inflows has been greater in Thailand (although data classification issues make cross-country comparisons difficult).[30] In Indonesia, likewise, the available evidence suggests that short-term inflows have grown in importance during the current period of overheating. Finally, in the case of the Philippines, while the risks associated with the external financing mix are less than in the mid-late 1980s owing both to the reduction in the debt burden and the prominence of medium- and long-term loans and FDI in the capital account, the country's position nevertheless remains vulnerable to shifts in workers' remittances, which tend to be sensitive to the same factors that affect capital inflows.

As regards *saving*, the recent widening of current account deficits have occurred in spite of saving rates that are among the highest in the developing world rather than, as has been the case in a number of Latin American countries that have experienced difficulty,

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[27]Malaysia's export share, at 85 percent, is distorted by the very high import content of exports. In terms of value added, the share would be smaller.

[28]In coming years, Indonesia's debt service ratio is likely to be adversely affected by a decline in the proportion of concessional debt, and by a reduction in the average maturity of private debt.

[29]In Asian developing countries, FDI and portfolio flows have tended to account for between one quarter and one half of net inflows during 1990–94. In Malaysia, the proportion is about three quarters.

[30]In Thailand, some foreign direct investment flows are officially classified as short-term inflows through the Bangkok International Banking Facilities (BIBF) and a sizable proportion of BIBF short-term inflows actually represent intra-bank transfers.

alongside relatively low saving rates.[31] While Singapore's saving rate—at nearly 50 percent of GNP—is by far the highest in the region, the other ASEAN countries have saving rates in the 30–40 percent range, except for the Philippines, where the rate is about 20 percent (Table 2). These relatively high saving rates reflect significant contributions from both the private and public sectors in the cases of Malaysia, Thailand, and Singapore, as the public sector has maintained surpluses in these countries. As mentioned previously, the Philippines' relatively low saving rate stems mainly from a weak fiscal position, which in turn reflects the large stock of government debt.

Another factor tending to reduce risks associated with external deficits in the ASEAN countries relates to their relatively high export orientation (Table 2). Rapid growth of exports—which continues, with investment, to be the main engine of growth in these countries, gives confidence to market participants that current account deficits will remain sustainable in the future. In addition, both the absence of significant exchange rate misalignment together with relatively open trade and investment regimes have tended to foster diversification of the export base in the ASEAN countries, making the trade balance less sensitive to terms of trade shocks, and reducing the risks associated with current account deficits.[32]

The final indicator to be considered relates to the health of the financial system, an especial concern during periods of rapid credit growth. As is apparent from a number of episodes of external crisis outside the ASEAN region, financial fragility makes an economy more vulnerable to changes in investor sentiment, as well as making the adjustment to the crises more costly. The ASEAN countries are acutely aware of the importance of appropriate supervision and prudential regulations. For example, in Thailand, risk-weighted capital-asset ratios were increased for both commercial banks and finance companies in order to comply with BIS standards, and now approach 10 percent for local banks. In addition, required provisions for doubtful assets were increased, and limits on banks' net open foreign exchange

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[31]In the period leading up to its external crisis (1979–81), Chile's saving rate was 9 percent of GDP, while in the period 1991–93, Mexico's saving rate amounted to 14 percent of GDP; see also Table 2. For an analysis of saving behavior in ASEAN countries, see Dayal-Gulati and Thimann (1996).

[32]Ghosh and Ostry (1994) find empirical evidence that countries that have relatively specialized production structures find it optimal to run larger external surpluses (smaller deficits) as a means of insuring themselves against the associated greater terms of trade volatility. The empirical result is justified theoretically by a precautionary savings effect, which operates from terms of trade volatility to saving behavior to the current account. The implication in this context is that relatively specialized economies will tend to have lower sustainable current account deficits than relatively diversified economies, other things equal, and therefore that diversifying the export base is likely to raise the sustainable current account deficit.

positions were tightened. While banks have been successful in broadly matching the maturity structure of their assets and liabilities, rapid growth in foreign currency lending has nevertheless created concerns of increased foreign exchange risk. In Malaysia, the position of the banking system has strengthened in recent years. In Indonesia, reforms of the financial system are underway to increase its resilience to shocks. Over the past three years considerable progress has been made in complying with prudential ratios and enhanced supervision, although problem banks remain, as do challenges for the enforcement of prudential guidelines. Completion of the ongoing reforms would reduce vulnerabilities in the financial system, ease constraints on monetary policy, and increase Indonesia's capacity to handle effectively a larger volume of capital inflows.

## V. CONCLUSIONS

This paper has examined a number of factors that bear on an assessment of the policy implications of widening current account imbalances in five ASEAN countries. In the main part of the paper, an analytical framework based on a model of optimal borrowing and lending was laid out theoretically and then estimated empirically. The framework was based on Friedman's permanent income theory of consumption applied to a small open economy with access to international capital markets. Such a framework leads to a consumption-smoothing view of the current account, according to which the latter acts as a buffer to smooth consumption in the presence of temporary disturbances to productivity, investment, or government spending.

On the whole, the model was found to fit the data reasonably well in the sense that the predicted "optimal" current account balance, based on the assumption of full consumption smoothing, was highly correlated with actual data on the current account, including at turning points. This statistical result, in combination with the charts illustrating the movements of actual and optimal current account balances, suggests that the model does capture both economically and statistically important aspects of current account behavior in ASEAN countries. This result is further strengthened to the extent that, in three of the five countries in the sample, the very stringent statistical requirements of the model, namely that the actual and optimal current account balances are identical, are not rejected by the data.

The fact that the model fits the data so well enables one to illustrate how the current account might respond to a variety of disturbances, including productivity growth, an investment boom, or fiscal consolidation. Any such shocks which caused the private sector to revise upwards its expectations of future growth in national cash flow (or net output, that is output net of investment and government spending) would contribute to a widening of the optimal current account deficit for the country, as consumption would increase in line with expected future growth, rather than current income. Any observed widening in the external deficits in such cases, therefore, would not be a cause for concern, as it would be fully justified on the basis of the economic fundamentals captured by the model.

It is indeed noteworthy, for example, that developments in a number of ASEAN countries (including Malaysia, the Philippines, and Thailand) which undertook significant macroeconomic stabilization and structural reforms in the 1980s, subsequently involved sizable deteriorations in external current account positions in the late 1980s-early 1990s. From the point of view of the model, these deteriorations are well captured by improvements in expected net output or the "optimal" current account balance predicted by the model. While all three factors—productivity improvements, investment increases, and fiscal consolidation are likely to have played some role, the remarkable surge in investment deserves special mention as a key factor underlying the widening of both optimal and actual current account deficits following stabilization and reform.

The consumption-smoothing model put forward in the paper may also be useful in shedding light on periods in which there is a *divergence* between optimal and actual current account behavior. With respect to the interpretation of such divergences, the paper argued that, since the model is drawing out the implications (for the current account) of optimal consumption behavior (based on the permanent income hypothesis), deviations between the optimal and actual current account balances based on this model carry the interpretation of excessive borrowing/lending for consumption/saving purposes.

What does the model show with regard to these deviations? In Indonesia, there appears to have been a period of excessive borrowing for consumption in the mid-1980s and early 1990s when the country recorded some of its (historically) largest current account deficits. An element of excessive borrowing (equivalent to about 1/2 percent of GDP) re-emerged in 1995 which, together with qualitative evidence that durables consumption and property-related investment have played a relatively large part in domestic demand growth over the past year, suggests that the optimal consumption-smoothing current account deficit for Indonesia may be somewhat below current levels.

In Malaysia, the external deficit also appears to have involved an element of excessive borrowing in both the early 1990s and at the end of the sample (about 1 percent of GDP in 1995). Again, therefore, while the largest part of the widening external imbalance appears to be justified by fundamentals, a small part appears not to have been consistent with the predictions of the consumption-smoothing model. In Thailand, by contrast, the recent widening of the current account deficit is consistent with consumption-smoothing considerations, although this conclusion needs to be interpreted cautiously given that the consumption-smoothing model did not fit the Thai data very well.

What, then, can be concluded about the optimality/sustainability of recent levels of the external current account balance in ASEAN countries? First, based on the model, there is little evidence of excessive private consumption in any of the countries, except to a small degree in Indonesia and Malaysia. Qualitatively, moreover, the deficits reflect mainly high private investment which has overwhelmed a strong saving performance, rather than a boom in consumption and weak private savings. The strength of savings and investment implies that the resources needed to enlarge future productive capacity are in place and, therefore, that

rapid economic growth, on which future debt-servicing capacity rests, is likely to persist. In addition, the allocation of investment appears to be efficient, judging from the strong performance of total factor productivity and exports, as well as the absence of significant relative price distortions in these economies. The only caveat here would be the rapid growth in infrastructural spending, which would tend to increase the payoff period and reduce the export intensity of investment in coming years.

Further, for most of the countries in the sample, fiscal policies have resulted in surpluses or small deficits in the public sector's accounts, suggesting that the external deficits do not primarily reflect an unsustainable fiscal policy. The only exceptions would appear to be the Philippines, with its very large stock of public debt (70 percent of GNP in 1994), and to a lesser degree Indonesia (also with a relatively high debt ratio). In both cases, fiscal consolidation would appear to be an appropriate objective over the medium term. A general caveat for the remaining countries would be that, while fiscal policy appears *sustainable*, the very existence of substantial fiscal surpluses could serve to constrain policy flexibility in practice (e.g., if some shock required policy to be tightened further), and thereby add to the *risks* associated with external deficits. Other factors constraining policy flexibility would include the rigidity of the exchange rate regime in some countries.

While the evidence in favor of *sustainability* (both from the model and the other qualitative indicators) is therefore relatively strong, the deficits nonetheless pose *risks* in the event of unfavorable shocks. Apart from policy flexibility, the paper discussed a number of factors that impinge upon the risks of running large external deficits in the region. The first such factor related to the level and composition of external liabilities. As regards the level, external debt ratios are relatively high in the Philippines, Indonesia, and Thailand, while they are significantly lower in Malaysia. The concentration of debt towards shorter maturities is greatest in Thailand's case, reflecting surging short-term inflows over the past few years, but has also increased substantially in Indonesia during the current period of overheating.

A second factor affecting the risks associated with external deficits in the ASEAN countries relates to their relatively high export orientation. Rapid growth of exports—which continues, with investment, to be the main engine of growth in these countries, gives confidence to market participants that current account deficits will remain sustainable in the future. In addition, both the absence of significant exchange rate misalignment together with relatively open trade and investment regimes have fostered diversification of the export base in the ASEAN countries, making trade flows less sensitive to terms of trade shocks, and reducing the risks associated with current account deficits.

A third indicator related to the health of the financial system, which can affect the risks associated with external deficits not only through its wider repercussions on the real sector, but also because weak banks can impair the effectiveness of monetary policy. The ASEAN countries are acutely aware of the need for appropriate supervision and prudential regulations. Nevertheless, this remains an area where continued monitoring is crucial to avoid instances of financial fragility, and the resulting changes in investor sentiment and costly adjustment.

Table 1. The Consumption-Smoothing Model: Statistical Results

| Country | Corr (ca, ca*) | Wald Test 1/<br>ca = ca* |
|---|---|---|
| Indonesia | 0.99 | Accept |
| Malaysia | 0.99 | Accept |
| Philippines | 0.99 | Accept |
| Singapore | 0.98 | Reject |
| Thailand | 0.68 | Reject |

Source: Staff calculations based on IMF data.

1/ Reject (Accept) means that the Wald test statistic for the null hypothesis that $\Gamma = [0\ 1]$ (or ca = ca*), which is distributed as $\chi^2(2)$ (under the null), exceeds (does not exceed) the critical value of the $\chi^2(2)$ distribution at the 5 percent level.

Table 2. Key Indicators for Selected Countries, 1991–95

(Average of 1991–95; in percent of GDP, unless otherwise indicated)

| | Indonesia | Malaysia | Philippines | Singapore | Thailand | Argentina | Brazil | Mexico |
|---|---|---|---|---|---|---|---|---|
| Current account balance | -2.5 | -6.4 | -5.3 | 14.4 | -6.2 | -2.2 | -0.4 | -5.3 |
| Saving | 31.5 | 30.5 | 18.6 | 45.0 | 33.8 | 15.7 | 19.9 | 16.2 |
| Public | 7.0 | 13.3 | 3.2 | 10.6 | 12.3 | 0.3 | 2.8 | 5.9 |
| Private | 24.5 | 17.2 | 15.4 | 34.4 | 21.6 | 15.3 | 17.1 | 10.3 |
| Investment | 34.0 | 36.7 | 21.9 | 36.0 | 40.5 | 17.8 | 20.3 | 21.6 |
| Public | 0.0 | 12.4 | 5.2 | 4.4 | 8.2 | 0.9 | 3.2 | 4.2 |
| Private | 0.0 | 24.4 | 16.7 | 31.2 | 32.3 | 16.9 | 17.1 | 17.5 |
| Fiscal balance 1/ | -0.2 | 0.2 | 1.6 | 13.2 | 2.6 | -0.2 | -0.2 | 0.8 |
| Net capital inflows | 4.3 | 10.9 | 3.0 | -3.3 | 10.3 | 3.1 | 2.1 | 6.1 |
| Net portfolio investment | 0.6 | 0.0 | 0.5 | 0.0 | 1.3 | 2.0 | 1.1 | 1.8 |
| Net direct investment | 1.5 | 4.9 | 1.5 | 6.2 | 0.9 | 1.4 | 0.2 | 1.7 |
| Other short term | 1.6 | 3.1 | 0.6 | 1.7 | 5.9 | 0.6 | 0.3 | 0.1 |
| Other long term | 0.6 | 2.9 | 0.4 | -3.1 | 2.3 | 0.0 | 0.8 | 2.6 |
| Reserves (in months of imports) | 3.2 | 4.5 | 2.5 | 7.0 | 5.0 | 7.0 | 9.4 | 3.6 |
| Total external debt (in percent of exports of goods and services) | 192.8 | 45.2 | 170.6 | 77.3 | 106.2 | 393.0 | 351.4 | 249.4 |
| Short term (in percent of export of goods and services) | 17.3 | 7.9 | 27.0 | n.a. | 50.4 | 103.2 | 65.3 | 41.2 |
| Debt-service ratio (in percent of exports of goods and services) | 32.1 | 6.1 | 24.5 | n.a. | 10.9 | 44.5 | 40.9 | 69.9 |
| Real GNP (growth rate) | 7.8 | 8.7 | 3.0 | 8.8 | 8.4 | 5.3 | 2.7 | 0.8 |
| Exports (growth rate) | 11.9 | 19.0 | 13.2 | 11.9 | 19.0 | 10.6 | 8.0 | 10.1 |
| Exports (percent of GDP) | 26.4 | 84.9 | 20.3 | 136.7 | 40.5 | 7.2 | 9.0 | 16.9 |

Source: IMF, *World Economic Outlook.*

1/ Central government, excluding privatization receipts.

CHART 1

INDONESIA

# ACTUAL AND OPTIMAL CURRENT ACCOUNT, 1975-95 1/
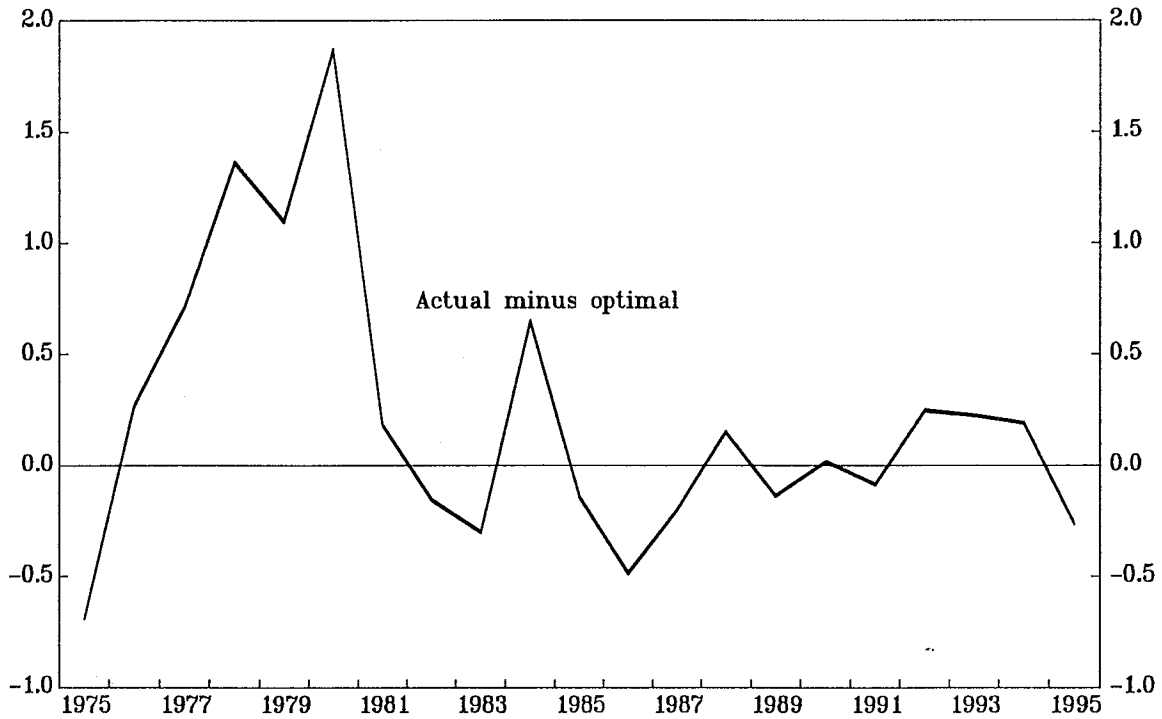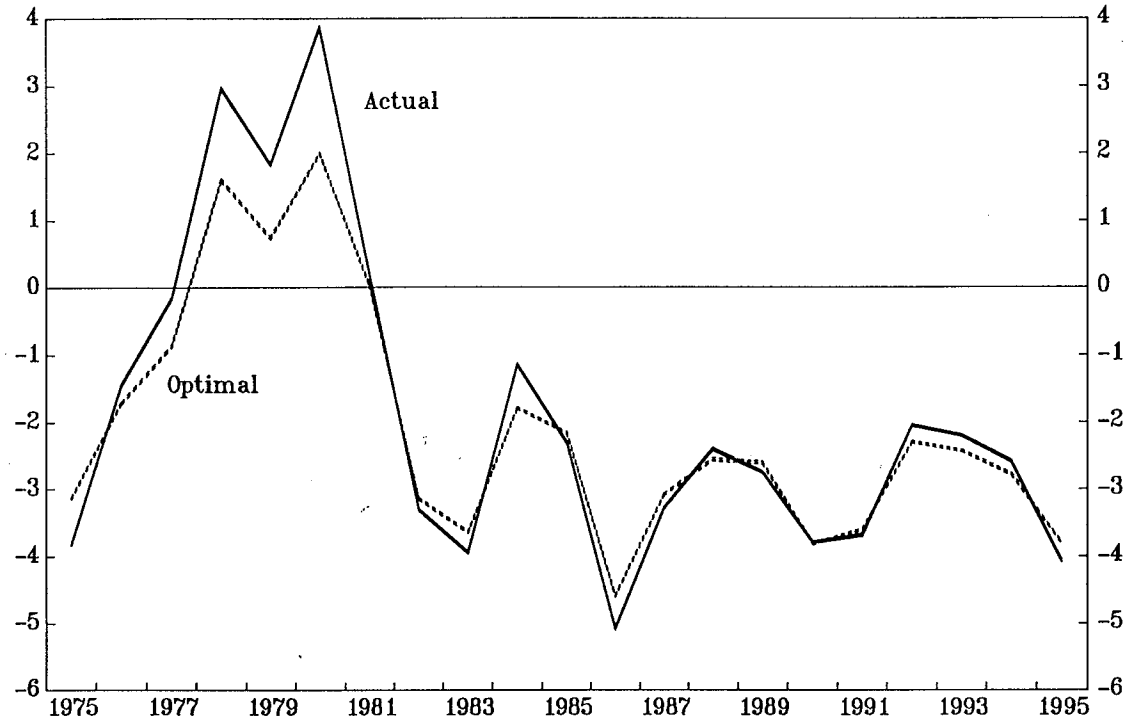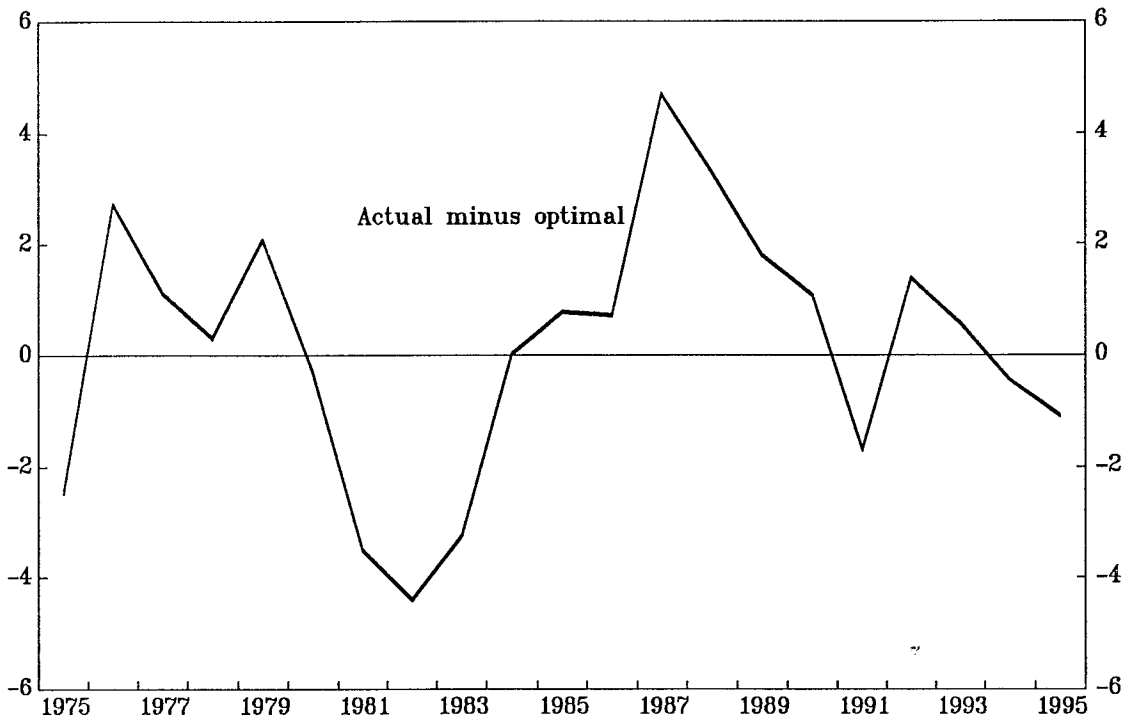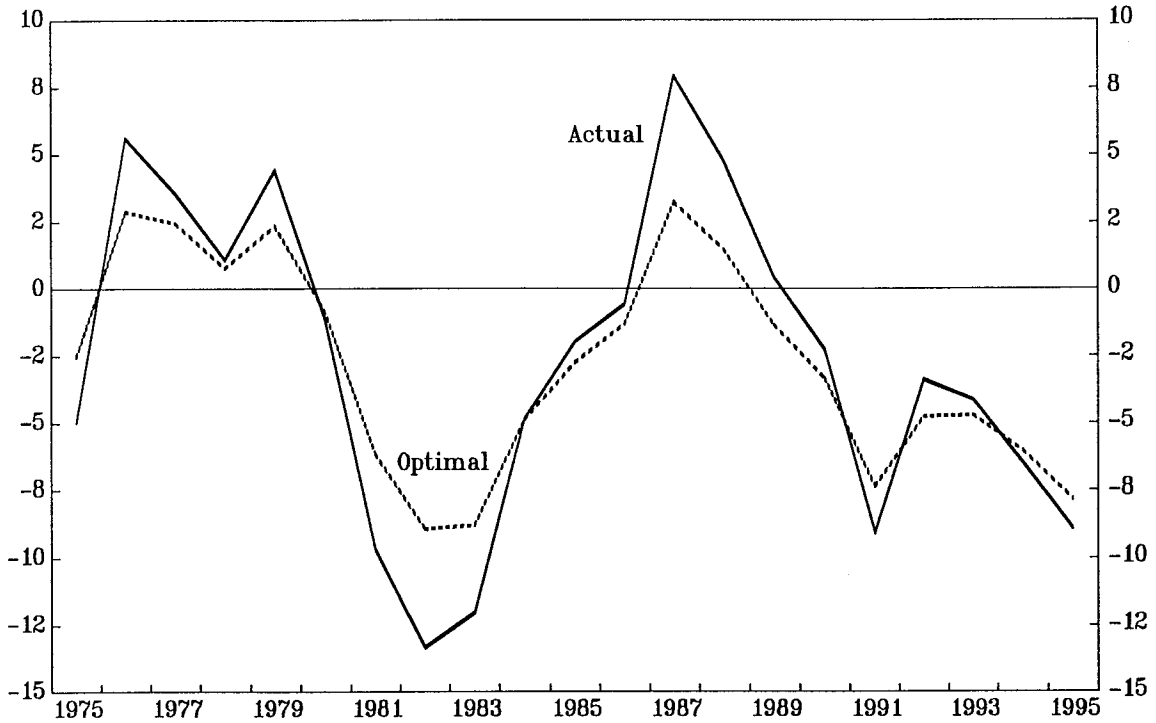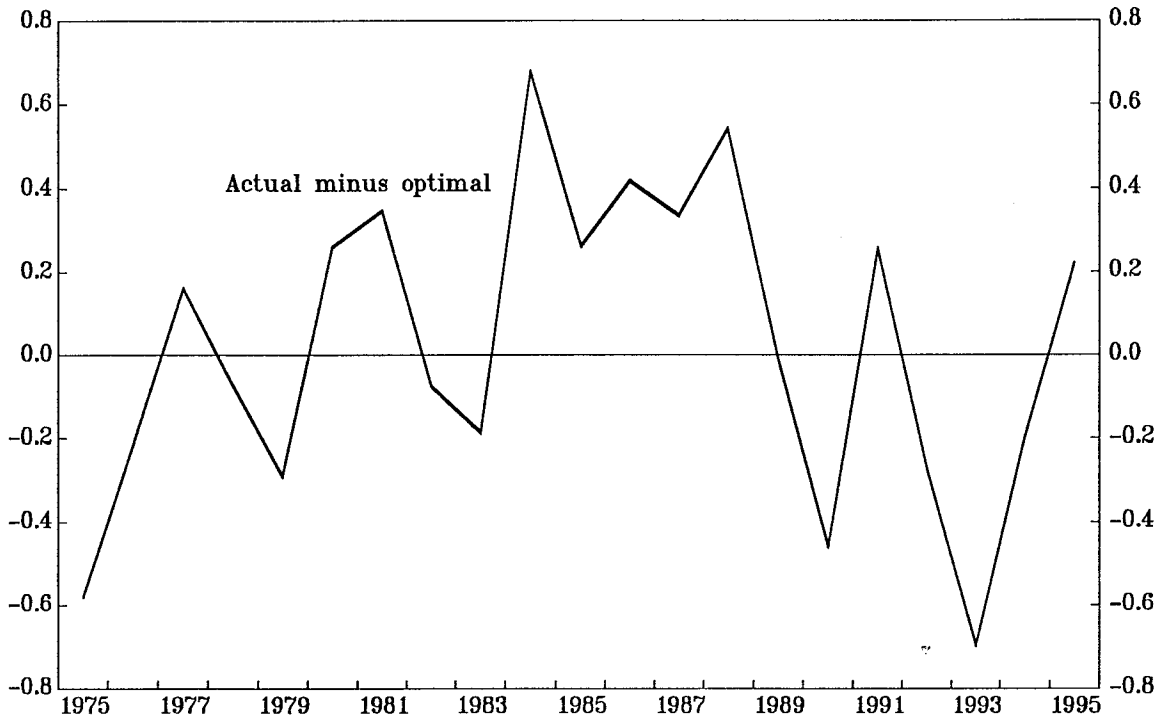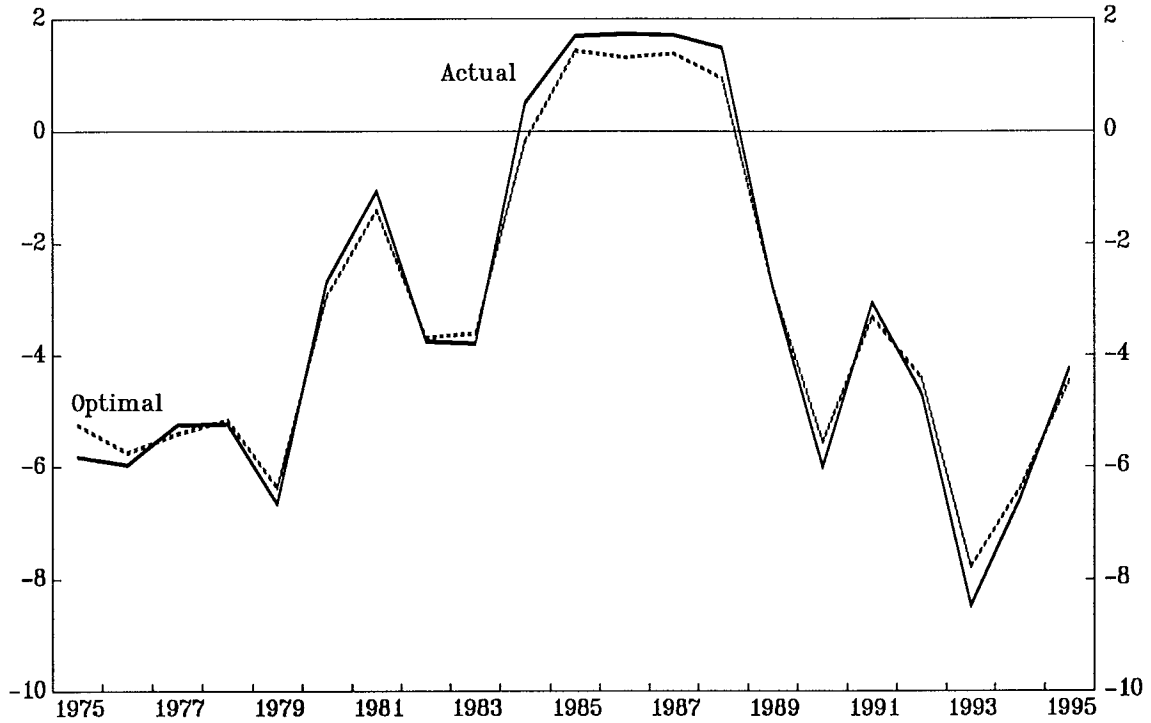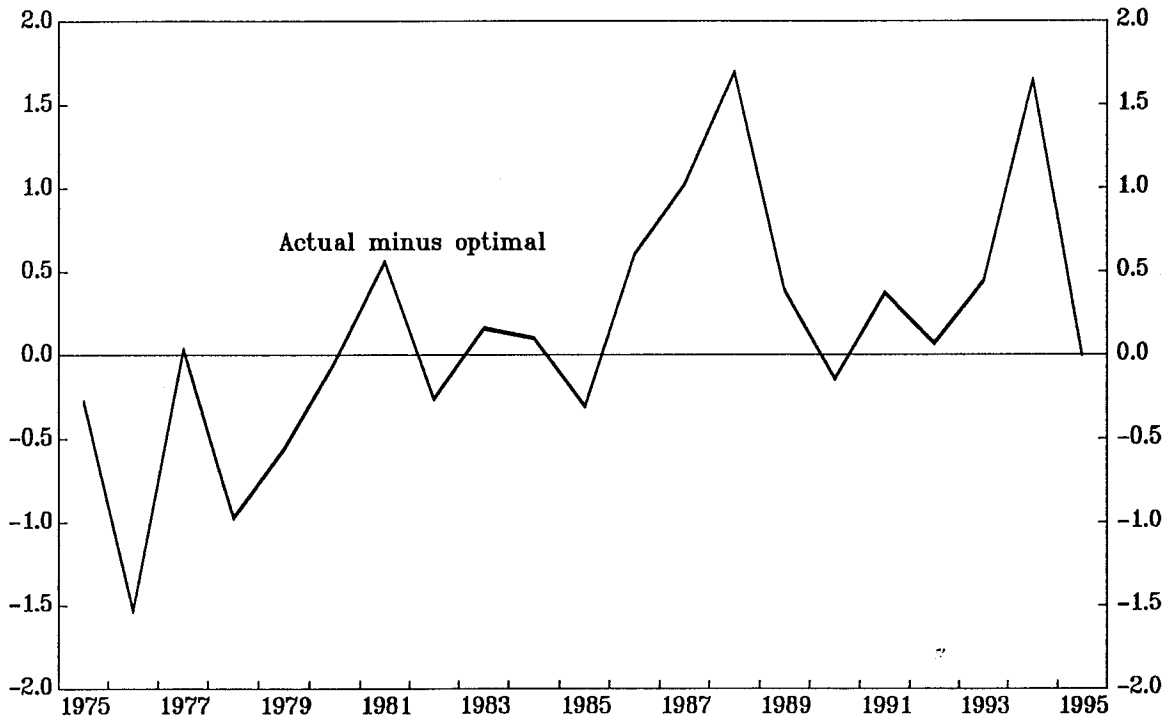
(In percent of GDP)



Source: IMF, International Financial Statistics.

1/ National accounts definition, all data deflated by the implicit GDP deflator. See text for an explanation of the derivation of the optimal current account balance.

CHART 2

MALAYSIA

# ACTUAL AND OPTIMAL CURRENT ACCOUNT, 1975-95 1/
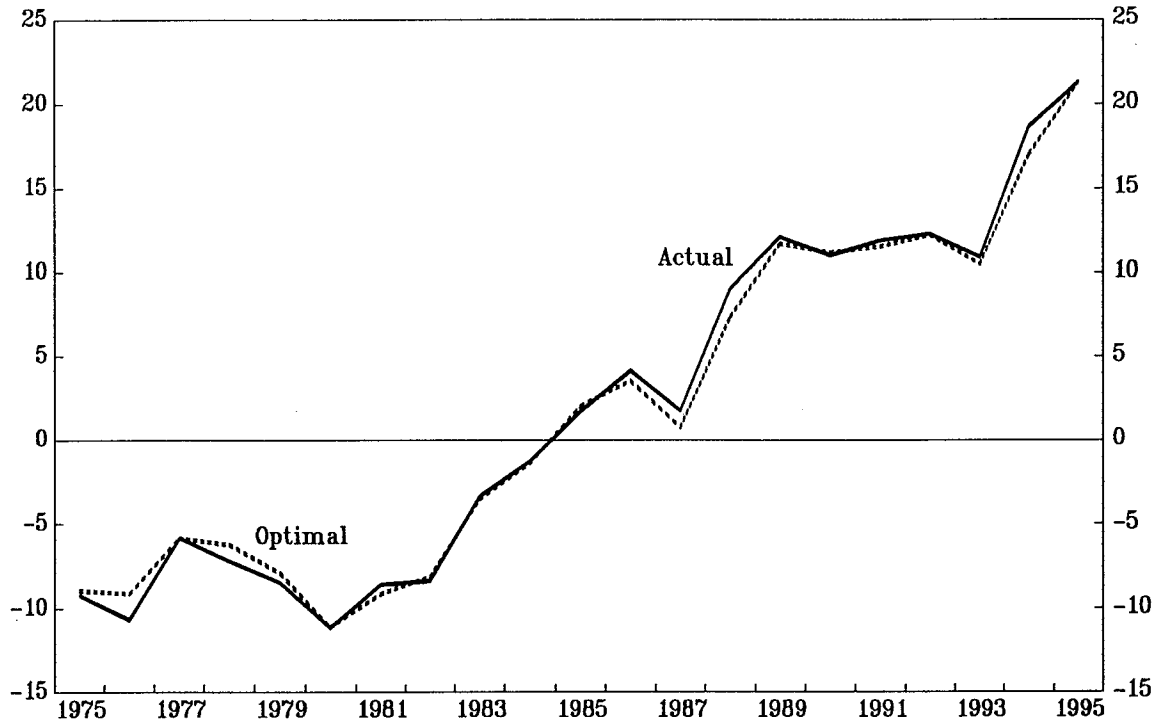(In percent of GDP)



Source: IMF, International Financial Statistics.
1/ National accounts definition, all data deflated by the implicit GDP deflator. See text for an explanation
of the derivation of the optimal current account balance.

CHART 3

PHILIPPINES
## ACTUAL AND OPTIMAL CURRENT ACCOUNT, 1975-95 1/
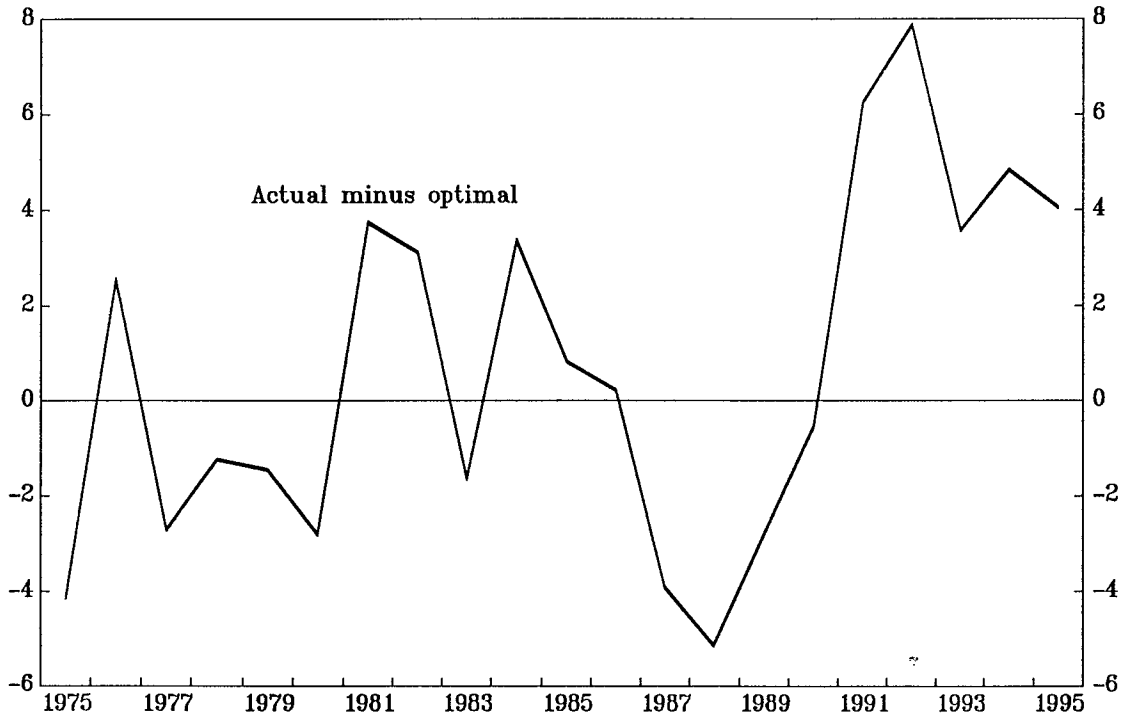(In percent of GDP)



Source: IMF, International Financial Statistics.
1/ National accounts definition, all data deflated by the implicit GDP deflator. See text for an explanation
of the derivation of the optimal current account balance.

CHART 4

SINGAPORE

# ACTUAL AND OPTIMAL CURRENT ACCOUNT, 1975–95 1/
(In percent of GDP)
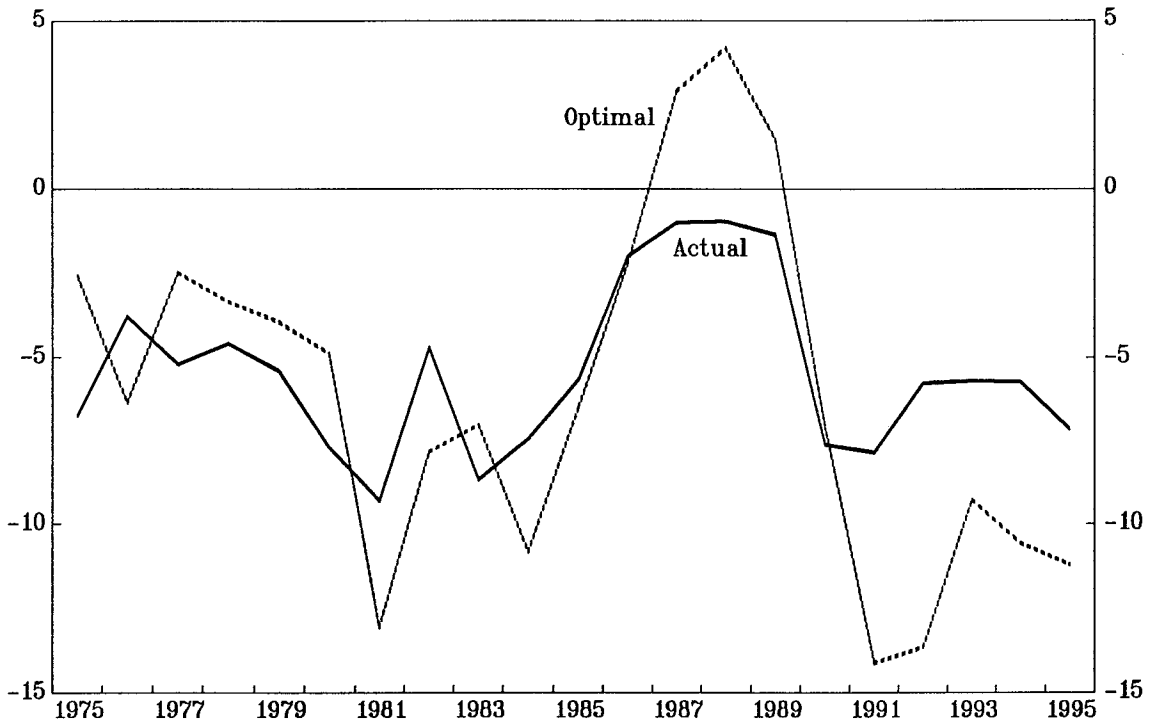
Actual

Optimal

Actual minus optimal

Source:  IMF, International Financial Statistics.
1/  National accounts definition, all data deflated by the implicit GDP deflator.  See text for an explanation
of the derivation of the optimal current account balance.

CHART 5

THAILAND
# ACTUAL AND OPTIMAL CURRENT ACCOUNT, 1975-95 1/
(In percent of GDP)



Source: IMF, International Financial Statistics.
1/ National accounts definition, all data deflated by the implicit GDP deflator. See text for an explanation of the derivation of the optimal current account balance.

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