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The Suitability of ASEAN for a Regional Currency Arrangement¹

Prepared by Tamim Bayoumi and Paolo Mauro

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Abstract

This paper examines the costs, benefits, preconditions, and implications of an Association of Southeast Asian Nations (ASEAN) regional currency arrangement that is assumed to culminate in a regional currency. On economic criteria, ASEAN appears less suited for a regional currency arrangement than Europe before the Maastricht Treaty, although the difference is not large. The transition to European Monetary Union (EMU) indicates that the path toward a common currency is fraught with difficulty. A firm political commitment would seem to be vital to ensuring that an attempt to form a regional currency arrangement is not viewed as simply another fixed exchange rate regime, open to speculative crises.

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I. INTRODUCTION

This paper examines the costs, benefits, preconditions, and implications of an ASEAN regional currency arrangement that is assumed to culminate in a regional currency. Such a proposal would have been regarded as highly radical even a decade ago, and would have been unlikely to be considered as a serious policy option along with fixed and floating exchange rates. However, recent international financial crises have eroded the credibility of unilateral fixed exchange rates and correspondingly increased interest in “harder” pegs, such as currency boards, adopting another country’s money as the domestic currency, and common currency arrangements.

The successful launch earlier this year of the euro in continental Europe is one of three factors which make a common currency a particularly interesting option for the members of ASEAN.² While historically most currency unions were formed against the background of political union, the euro zone brings together independent states with a large degree of political control over their internal affairs, including fiscal policy. As such, the euro provides a much closer parallel to a potential ASEAN currency union than most earlier experiences.³ Given this background, a major theme of this paper will be to distill the useful implications from the European experience with regard to EMU for a possible ASEAN currency arrangement.

The recent crisis has increased interest in policies to achieve greater regional exchange rate stability. The Asian financial crisis involved a general abandonment of de facto exchange rate pegs against the dollar (Figure 1). These pegs had helped to stabilize intra-Asian bilateral exchange rates (a consequence of two countries allowing their exchange rates to closely follow the dollar is that they also limit fluctuations in their own bilateral exchange rate). This switch from quasi-fixed to floating exchange rates has increased interest in exchange rate systems which can provide stable intra-Asian exchange rates, thereby allowing governments to continue fostering expanded intra-regional trade and capital mobility. A regional currency arrangement would constitute such an environment, while providing the members with flexibility with regard to the three major global currencies, the

²ASEAN consists of ten countries, Brunei Darussalam, Cambodia, Indonesia, Laos, Malaysia, Myanmar, the Philippines, Singapore, Thailand, and Vietnam.

³The other main examples of common currencies across a number of countries are the CFA franc zone, the East Caribbean currency union, and the rand zone. However, in all of these cases, the common currency is closely linked to that of a major regional currency (the franc, dollar, and rand), so that these unions essentially act as a fixed exchange rate regime. The process by which EMU came about, and its status as an independent currency, both seem more relevant for the case of ASEAN.

dollar, euro, and yen. This is particularly important for ASEAN, with its relatively diversified trading partners, which provides no obvious single currency against which to peg.⁴

It is against this background that a currency union within ASEAN has begun to attract policy makers' attention as a potentially viable option. Those in favor of such a plan have pointed to the considerable macroeconomic policy credibility the major economies in ASEAN have accumulated through a history of relatively low rates of inflation and modest fiscal deficits and government debt as a ratio to GDP, two of the key preconditions laid down for launching a successful monetary union in Europe (Table 1). Although some of these indicators have deteriorated recently in response to large devaluations and recession, a return to a stable macroeconomic environment can be expected.

On the other hand, there are a number of factors that militate against a common currency union for ASEAN. By way of illustration, the levels of development across ASEAN differ more significantly than in Europe. Such differences in standards of living and economic maturity may complicate further economic integration, without which the full benefits of a single currency cannot be realized.

The next section analyzes the potential benefits and costs associated with a currency union for ASEAN in more detail. This is followed by a discussion of the preconditions for a successful currency union, which focuses on what the experience of Europe implies for a similar possible venture in ASEAN. The paper concludes with a discussion of the implications of a currency union for ASEAN countries.

II. BENEFITS AND COSTS

The economic benefits and costs of adopting a single currency are explored in the literature on the theory of optimum currency areas (OCA). The benefits emanate primarily from greater economic integration, reduced transaction costs, and the higher levels of trade and investment that may result from exchange rate stability within ASEAN. The costs come from the loss of monetary autonomy for the regions involved, which limits the

⁴ Indeed, the loss in competitiveness experienced by many Asian economies as the yen depreciated against the dollar and the de facto dollar-pegged regional currencies after 1995 has been cited by many commentators as one of the strains which helped precipitate the Asian financial crisis. This situation contrasts with some countries in the Americas (for example) whose trade is dominated by the United States and for whom adopting the dollar through a currency board or dollarization might be a more attractive choice.

macroeconomic policy options available to stabilize activity in the face of unexpected macroeconomic shocks.⁵

Major OCA criteria are patterns of trade and the size and correlations of macroeconomic disturbances. OCA criteria fall into three basic groups. First, the importance and composition of intra-regional trade provide information about the likely benefits from a currency union. Second, the nature of the underlying shocks and the flexibility of factor markets speak to the potential costs from losing an independent monetary policy (the focus of much of the existing empirical work). Third, the similarity of the economies in terms of their past macroeconomic policies, stage of economic development, and similarity of financial systems may provide information on potential difficulties of introducing a common currency.

The higher is *intra-regional trade*, the greater are the benefits that a common currency is likely to achieve. These benefits come through lower transaction costs and avoiding disruptions of trade related to fluctuations in the bilateral exchange rates between potential common currency participants that may not be warranted by fundamentals. In addition, the *composition of trade* may also affect these benefits. The higher the share of trade in manufactures and similar goods in which prices are largely determined by the producer, as opposed to commodities whose prices are set in international markets, the greater the appeal of a common currency among trading partners.⁶ This is because fluctuations in bilateral exchange rates typically have a more significant impact on intra-industry trade in differentiated but substitutable products than on trade in homogeneous products with a well integrated world market (see Eichengreen and others, 1998, p. 37.)

The costs of adopting a common currency are higher the larger and more dissimilar are the *underlying shocks* the various countries face, as this increases the attraction of retaining an independent monetary policy and exchange rate. This is particularly true if the underlying shocks are real rather than monetary. Similarly, the lower the flexibility of *factor markets*, the more difficult is the adjustment to shocks, and hence the attraction of an independent monetary policy. Of particular importance in this connection is the flexibility of labor markets, i.e., the degree of ease with which high employment can be maintained in the

⁵ To make these issues more concrete it may be worth comparing the situation of two oil-producing regions, Texas within the U.S. and Norway (which is not a member of EMU) in Europe. Texas benefits from the ease of transacting with the rest of the U.S. economy that comes from sharing a single currency whereas Norway does not. However, when faced with falling oil prices Texas cannot lower its interest rates to help stabilize its output while Norway can.

⁶ However, it is possible that some manufactured goods—for example computer chips—are taking on some of the characteristics of commodities, in terms of having a world price rather than the degree of product differentiation and price stickiness generally associated with manufactured goods. This consideration may be particularly relevant in the case of ASEAN.

face of asymmetric disturbances, either through real wage flexibility within individual constituent economies or through high labor mobility across economies

Macroeconomic stability can also increase the attractiveness of forming a currency union. The more flexible and sustainable the *fiscal policy* stance, the lower the need for each country to use its own monetary policy to respond to shocks, and the smaller the inflationary pressures in the currency union. In addition, while countries with a history of high inflation have a greater desire for macroeconomic stabilization, and may be more willing to give up monetary sovereignty in exchange for greater credibility of policies under the currency union, their history of monetary instability may render them less appealing to other potential members.

It may also be easier to integrate countries which have *a similar level of economic development, and whose financial systems work in a similar manner* (although this has been less emphasized in the formal theory of optimal currency areas). The process of forming a currency union in Europe was associated with a significant degree of economic convergence in output per capita, which was partly a natural consequence of closer trade links and greater exchange rate stability, but was also supported by grants to the poorer members of the EU (in particular, Greece, Ireland and Portugal). These issues will be considered more fully in the sections on preconditions and implications of a common currency.

Turning to the empirical evidence on these criteria, ASEAN's *intra-regional trade* as a share of regional GDP is similar to that of the euro area, and higher than that of regions such as Mercosur or NAFTA (Table 2).⁷ This reflects the high degree of openness (defined as the share of trade in GDP) of the ASEAN countries, which is counterbalanced by ASEAN's relatively low share of intra-regional trade in total trade. ASEAN's ratio of intra-regional trade to regional GDP has risen considerably in recent years, mirroring both a rising proportion of intra-regional trade in total trade—itsself partly a function of rapid regional growth—and a marked increase in the openness of ASEAN's economies (Figure 2).

The *composition of ASEAN's trade by type of product* is also relatively favorable for considering a currency union. Following the rapid shift toward exports of manufactures that has occurred over the past two decades (Figure 3), ASEAN's trade is now weighted heavily towards manufactures—such goods currently amount to about four-fifths of total exports, a value which is only slightly lower than the corresponding import ratio. By contrast, in the case of Mercosur, manufactured goods comprise only about half of total exports currently, compared to four-fifths of total imports.

The *diversified geographical direction of ASEAN's trade* constitutes a consideration in favor of an independently-floating common currency over alternatives involving a peg to

⁷ The share of intra-regional trade in GDP may be overstated to the extent that it reflects trade of manufactured inputs for products ultimately destined for third markets.

another currency. The geographical direction of ASEAN's trade is highly diversified, and all three major currency areas (the United States, the euro area, and Japan) are important trading partners for most ASEAN countries (Table 2). This implies that the ASEAN countries' exposure to fluctuations among the major currencies is relatively high and that none of the major currencies is an obvious candidate for a common peg. In this respect, the case of ASEAN is less straightforward than that of the central and eastern European countries that aspire to EU and possibly euro membership, whose share of trade with the EU amounts to about one half; or of several countries in the Western Hemisphere, for which a peg to the U.S. dollar might be more natural. Indeed, when the ASEAN countries de facto pegged to the dollar before the Asian financial crisis, fluctuations in the exchange rate between the dollar and the Japanese yen resulted in significant movements in the ASEAN countries' real effective exchange rate (Figure 1). Therefore, should ASEAN countries decide to fix their bilateral rates, the geographic composition of their trade would militate against fixing to any one of the major external currencies and in favor of a common currency with an independently floating rate.

Evidence on macroeconomic disturbances indicate that ASEAN has some of the characteristics seen in Europe in the 1980s. Earlier results on the *correlation, size and speed of adjustment to underlying disturbances* for Asia have been updated, and are compared in what follows to the results reported for Europe in earlier work.⁸ Correlations of underlying (aggregate supply) disturbances are reported in Table 3 (significantly positive values are shaded), while Table 4 reports the size and speed of adjustment to shocks. As discussed earlier, countries are better candidates for a currency arrangement if their disturbances are correlated and small, and if they adjust rapidly to them.

Underlying macroeconomic disturbances appear relatively similar across some ASEAN members, a pattern also seen in Europe in the 1980s. Results of underlying economic disturbances for Asia suggest that there are similarities between the aggregate supply disturbances of Hong Kong SAR, Indonesia, Malaysia, and Singapore.⁹ Focusing on the members of ASEAN the results for aggregate supply indicate that Malaysia, Indonesia, and Singapore have relatively similar disturbances, while the Philippines and Thailand

⁸ See Bayoumi and Eichengreen (1994). The paper uses structural vector autoregressions (VARs) to derive underlying domestic aggregate supply and aggregate demand disturbances, while the associated impulse response functions are used to measure the size of the underlying shocks and the speed of adjustment to disturbances. The updated Asian results use data from 1968 to 1998, compared to a sample period of 1969 to 1989 used in the European results reported in the original paper.

⁹ Aggregate supply disturbances are generally more relevant than aggregate demand disturbances (which are also calculated by the methodology), as aggregate supply disturbances are more related to underlying private sector behavior rather than the impact of macroeconomic policies.

experience more idiosyncratic shocks. As can be seen, these results are somewhat similar to those found earlier for western Europe, where shocks appear to be relatively highly-correlated between France and Germany, and more idiosyncratic in Italy and Spain.

Comparing Asia and Europe on other criteria linked to underlying disturbances provides mixed signals. The *size of the disturbances* experienced by the Asian economies is considerably larger than that of the equivalent shocks for Europe. This is in part because of the inclusion of the Asian crisis years (1997 and 1998) in the estimation, but also occurs when the sample period excludes the Asian crisis. By contrast, the *speed of adjustment* in Asia (and ASEAN in particular) is much more rapid than in Europe, indicating that ASEAN economies may find it easier to respond to disturbances than their European counterparts, presumably thanks to their more flexible labor markets in individual member countries.¹⁰

Overall indices measuring underlying exchange rate variability have been developed to help measure suitability for a currency union. In an effort to combine the various criteria for a currency union, Eichengreen and Bayoumi (1998) developed an “OCA index” which measures the expected level of exchange rate variability between Asian countries, based on the results from a cross-sectional regression covering industrial and east Asian economies that related observed exchange rate variability to four optimum currency indicators. The indicators are: (i) the standard deviation of the difference in growth rates across the two economies; (ii) the dissimilarity of the composition of trade; (iii) the level of bilateral trade; and (iv) the size of the two economies. The first two indicators are proxies for the costs associated with asymmetric shocks, while the second two are proxies for the benefits from stabilizing exchange rates with close trading partners and across larger groupings of countries. Clearly, a lower expected level of bilateral exchange rate variability implies a greater ability to forego the benefits of a flexible exchange rate.

This work indicates that ASEAN is less suitable for a currency union than the continental European countries were in 1987 (a few years before the Maastricht treaty providing a road map for EMU was signed), although the difference is not very large. Using ASEAN data for 1995, the results indicated that the expected level of exchange rate variability (defined as the variance of the annual real bilateral exchange rate) associated with fundamentals across the most important ASEAN economies (Indonesia, Malaysia, the Philippines, and Thailand) were all in the 8–11 percent range (Table 5). This is higher than the 6–9 percent range across the major continental European economies calculated in an earlier exercise using 1987 data and a similar methodology, but the difference is not excessively large (see Bayoumi and Eichengreen, 1997, p. 761–70). On this very simple basis, it would be an exaggeration to argue that the ASEAN economies are very far from the level of preparedness for a currency union of continental European economies in 1987—almost a decade after the Exchange Rate Mechanism had been introduced to limit

¹⁰Labor mobility among ASEAN countries seems highly unlikely to be significantly greater than in Europe.

intra-regional exchange rate variability and increase monetary cooperation, but still before the Maastricht treaty was adopted, and hence closer to the current condition of ASEAN than more recent dates.

However, economic criteria of the suitability for a currency union may well be partly endogenous. A further result from the European OCA indices is that they fell relatively rapidly between 1987 and 1995. This is consistent with the view recently put forward by some authors that the optimum currency area criteria are themselves related to decisions on economic integration, so that the desirability of a currency union becomes itself partly a function of the underlying political choices, which helps to explain why currency unions generally correspond to national borders (see Frankel and Rose, 1998). This implies that the political commitment to further economic integration may well be an important criterion for a currency union.

III. PRECONDITIONS FOR CURRENCY UNION—THE EUROPEAN MONETARY UNION

This section focuses on the process by which the European Monetary Union (EMU) came about, given the limited examples of currency unions being voluntarily initiated by a group of autonomous states.

EMU was the result of a process of strengthening economic, monetary, and political ties within Europe that lasted for over 40 years. The origins of EMU may be traced back to the Treaty of Rome in 1956, which founded the European Economic Community and identified the exchange rates of member countries as a matter of common concern. A plan for monetary union was drawn up in 1962 by the Commission of the European Communities, and the Werner Report of 1970 envisaged monetary union within a decade, but these plans were halted by the collapse of the Bretton Woods system in the early 1970s. Subsequently, from the initiation of the “snake-in-the-tunnel” in 1972 to the adoption of the Maastricht Treaty in 1991, monetary (and economic) integration was largely pursued through various mechanisms for limiting exchange rate volatility, with mixed success (see Box 1), and through expanding the membership of the European Union (also called, in earlier incarnations, the European Economic Community and then the European Community). Cooperation in other policy areas, including structural funds supporting the poorer members of the EU, was also expanded.

The Maastricht Treaty of 1991 provided a detailed timetable and set of preconditions for the final stages of the process of monetary integration. The potential participants agreed that, in order to be allowed to join EMU, countries had to fulfill a number of requirements, including a comprehensive set of macroeconomic convergence criteria and institutional requirements involving central bank independence and greater factor mobility, but were not required to fully harmonize their fiscal or financial systems as these were felt to be national concerns.

Box 1. Mechanisms for Limiting Exchange Rate Variability in Europe

The collapse of the Bretton Woods system led to the adoption of mechanisms to limit intra-European exchange rate volatility. The “snake-in-the-tunnel” agreement initiated in April 1972 involved bands of 4½ percent around central parities versus the U.S. dollar. However, the subsequent depreciation of the dollar led to the snake itself floating in March 1973. In any case, the European “snake” is generally regarded as a failure, largely because of asymmetric intervention rules (all intervention was undertaken by the weaker currency) and the lack of adequate financing to survive exchange rate crises. Participation after the first few years was limited to Germany, the Nordic countries and some other small continental countries, and excluded the United Kingdom, France, and Italy.

The establishment of the European Monetary System in 1979 revitalized the project of monetary integration, with the Exchange Rate Mechanism (ERM) designed to contain exchange rate fluctuations across members within agreed bands of 2¼ or 6 percent. The ERM was more successful than the snake, largely because of its somewhat more flexible structure, and confirmed that greater stability of exchange rates was possible even with a larger membership (all EC members except the United Kingdom joined in 1979). Differences in inflation rates led nevertheless to frequent realignments of the central parities in the early years, but over time the ERM “hardened” as these realignments became less frequent and monetary cooperation increased.

The process of monetary integration did not proceed smoothly in the early 1990s, however, despite the adoption in 1991 of the Maastricht Treaty. In 1992 and 1993, in the aftermath of German unification, a series of speculative crises first forced Italy, the United Kingdom, and several Nordic countries to abandon their ERM or quasi-ERM status, and later led the remaining members to widen their ERM bands to 15 percent (although the full range of these bands was never used). Italy later rejoined the ERM and became a founding member of EMU, but Sweden and the United Kingdom remain outside the euro zone.

Preconditions for nominal convergence involved numerical targets on the convergence of interest rates, inflation, exchange rates, and general governments’ debts and deficits. The requirement that inflation rates and interest rates converge in the run up to EMU was primarily aimed at avoiding large real exchange rate changes once nominal rates were locked irreversibly. In addition, it was also required that a country’s exchange rate be maintained within the Exchange Rate Mechanism bands without any unilateral changes in the central parity for at least two years prior to participation in the common currency. These constraints often made it necessary for central banks to adopt a different monetary stance than they would have chosen on the basis of purely domestic considerations. Therefore, these convergence criteria helped prepare the ground for the present arrangements, under which the governors of the individual country central banks—who sit on the Governing Council of the

European Central Bank—are expected to focus on euro-area considerations rather than country-specific conditions in setting monetary policy in the euro area.

The fiscal deficit and debt criteria were designed to ensure that countries were willing to bring their public finances onto a sustainable path. The criteria were that, by the time EMU was initiated, general government deficits were to be limited to 3 percent of GDP or less, and that general government debt levels were to be below 60 percent of GDP or falling toward that figure at a satisfactory pace. The aim was to avoid negative spillovers from the fiscal imbalances of individual member countries to other members through pressures for an undue relaxation of monetary policy or even a bailout of a government. Even after adopting the common currency, the euro member countries continue to attach particular importance to fiscal sustainability. This is evidenced by their adoption of the Stability and Growth Pact, which foresees penalties for member countries that incur fiscal deficits in excess of 3 percent of GDP.

The preconditions may be seen in part as a screening device aimed at weeding out participants that, once in the currency union, might become reluctant to adopt prudent macroeconomic policies, thereby imposing costs on other member countries. They were ultimately aimed at moderating changes in real exchange rates among member countries under EMU and at avoiding the possibility that expansionary fiscal policy in some countries would lead to inflationary pressures in the union as a whole. More broadly, the criteria were intended to help create a culture of price stability as well as to gradually shift the focus of macroeconomic policies from domestic to currency-union-wide considerations.

A number of institutional preconditions such as central bank independence were also required for EMU participation, in addition to macroeconomic convergence. The main requirements related to the independence of the individual-country central banks from national or Europe-wide political authorities and the opening of factor markets. Monetary financing of budgetary deficits by individual-country central banks and privileged access of the public sector to financial institutions were prohibited in January 1994. This laid the basis for the current legal framework, which prohibits the European System of Central Banks (comprising the European Central Bank and the central banks of member countries) from financing governments or EU institutions, or from assuming their commitments. In addition, over a somewhat longer period, capital controls were steadily lifted and labor markets were gradually opened to citizens of other member countries. Finally, the integration process was assisted by a Europe-wide competition policy, which forced countries to comply with EU directives in areas such as national subsidies, openness of product markets, and entry of EU firms into other member's markets.

Any ASEAN process moving toward a single currency would likely be broadly similar to the European experience with EMU. The most striking features of the EMU process are: (i) the long period over which monetary convergence took place; (ii) the use of specific criteria for inflation, interest rates, and fiscal policy; (iii) the integration of capital and labor markets; and (iv) the decision to only partially harmonize fiscal or financial systems. The slow rate at which the EMU evolved probably reflected both the experimental

nature of the plans and the late adoption of a currency union as the final goal, constraints which may or may not apply to other regions.

Nominal convergence would appear to be an important precondition for avoiding macroeconomic instability stemming from movements in competitiveness or monetary policies, and would thus likely be a key component of any run-up to adopting a common currency. The issue of whether fiscal rules are necessary is less clear-cut. Their adoption in Europe reflected, at least in part, the history of fiscal instability in some European countries. At the same time, successful integration of monetary policy without some constraints on member countries' fiscal behavior or a common major federal fiscal system (as in most currency unions within nation states) might be difficult. Open capital markets would appear central to reaping the maximum benefits from a single currency and responding flexibly to asymmetric disturbances. Open labor markets may also help to respond to asymmetric disturbances, but may be less central to adopting a single money, and also less realistic. Finally, there seems to be little reason to harmonize fiscal or financial systems within a group of autonomous countries.

An ASEAN process for a currency union might be expected to include a significant period for achieving preconditions, involving, at various stages, nominal convergence criteria, an interim form of exchange rate arrangement (possibly involving bands around central parities), fiscal rules, regional capital mobility, a regional competition policy, and some move toward labor market integration. In thinking about these issues, certain differences between the situation of western Europe and that of ASEAN should also be recognized. First, ASEAN does not contain the same type of focal point that Germany, as the largest economy in Europe with an established track record of stable macroeconomic policies, provided in Europe. Second, and equally important, western Europe is less diverse than ASEAN in terms of levels of economic development.

One of the benefits experienced by Europe from the EMU process was a gradual adoption of stable macroeconomic policies (although it should be recognized that many other countries also stabilized inflation and fiscal policy over the same period). An important issue in any arrangement such as the ERM is how the overall monetary stance is determined. The ERM has been generally characterized as being dominated by Germany, with other countries following the monetary policy of the Bundesbank, reflecting both the economic importance of the German economy within Europe and the superior track-record of the Bundesbank in delivering low inflation. The other major members of the ERM apparently accepted this arrangement as it allowed them to successfully reduce their inflation rates, which was a high economic and political priority. However, the convergence process worked less well in the wake of German unification, as the macroeconomic needs of the German economy diverged from the rest of the region, and the resulting strains on intra-European macroeconomic policies may have contributed to bringing about the ERM crises of 1992 and 1993.

ASEAN would need to develop successful cooperative procedures earlier than in Europe, as it lacks the natural focal point for the convergence of macroeconomic policies that Germany provided. In the ASEAN context, there is no country with the advantages which

allowed Germany to be so important in determining the overall monetary stance. The aggregate monetary stance would probably need to be determined through a cooperative approach at an earlier stage than was the case in Europe, where the Bundesbank played such an important role in the period before the adoption of the euro. While the absence of a focal point such as Germany would likely make it somewhat more difficult to solve coordination problems, it would also avoid any strains that might result from large idiosyncratic shocks to the country serving as a focal point.

The degree of cooperation needed to establish the institutions necessary for a common currency within ASEAN would also be greater than that needed to accompany a set of bilateral pegs between ASEAN countries, although the benefits in terms of credibility would also be greater. A common currency requires several joint institutions, including a common central bank, agreed rules on sharing seigniorage among member countries, and jointly agreed procedures for lender-of-last-resort operation, just to name a few. At the same time, in light of the greater political cost of leaving a common currency rather than a peg, the establishment of a common currency would demonstrate greater commitment to policies that are stable and geared toward area-wide rather than domestic considerations. This would in turn increase the credibility and sustainability of a common currency compared with that of a set of bilateral pegs among member countries.

The similarity of the major members of EMU in terms of their economic development and monetary systems may well have made adoption of certain policies to support economic integration easier. Examples include the integration of capital and labor markets (which are necessary to obtain the full benefits of a currency union) and transfers to the EU's poorer members. Migration of workers from low-wage to high-wage countries within the EU, and any ensuing social strains, have been relatively limited. Transfers to the poorer members—a policy that mitigates the pressures toward migration—have been sizable in per capita terms from the point of view of the recipient countries (albeit relatively low in absolute terms because the EU's poorer members have relatively small populations). Integrating countries with very different levels of development and diverse economic structures may be more complicated, as can be seen in the process that may eventually bring eastern European nations into the EU and, eventually, EMU. Given that ASEAN has a significantly more diverse set of countries in terms of development and much more populous poor members, the process of engaging in economic integration would need to be carefully considered, with the particular characteristics and needs of ASEAN countries taken into account.

The experience of the transition arrangements leading to European Monetary Union shows that the path toward a common currency is fraught with difficulties. The periodic crises and the recurring need for realignments within the ERM and its predecessor arrangements demonstrate that transition arrangements toward a common currency are only sustainable when economic policies are largely subordinated to the maintenance of the agreed exchange rate bands. Such crises might also have undermined the potential member countries' resolve to pursue the goal of a common currency. The fact that the EMU countries were able to attain that goal is a testament to their strong political commitment to it.

It is important to recognize that reasonably high levels of economic integration can be achieved without a common currency. An alternative way of achieving somewhat closer integration without such a high degree of policy coordination would be to follow the example of Canada with respect to the United States or Switzerland with regard to Germany. In both cases, reasonably high levels of economic integration without the loss of significant economic sovereignty have been achieved by commercial agreements and by limiting short-term exchange rate volatility through intervention without controlling long-term currency movements. Adapting such an approach to a multicountry context of the type of ASEAN might require somewhat more coordination than the bilateral relationships mentioned above, although a detailed analysis of such an arrangement is beyond the scope of this paper.

IV. IMPLICATIONS OF A REGIONAL CURRENCY UNION AND CONCLUDING REMARKS

What would the implications be of adopting a regional currency arrangement with a view toward a future currency union by at least some members of ASEAN? In considering this issue, the experience of the Europeans is the best guide that is available.

In terms of economic criteria, the members of ASEAN appear to be less suited for a currency union than those of the EU were a few years before the signing of the Maastricht treaty, although the difference is not very large. Greater integration also appears to have pushed forward the process of EMU by making Europe a more suitable region for a single currency. Economic integration is thus not simply a necessary precondition for a currency union, it may also create favorable conditions for launching a currency union.

At the heart of the EMU project was a political willingness to accept a certain loss of sovereignty in order to achieve greater economic integration, which helps to explain why certain eligible members of the EU decided not to join initially. The EMU process was associated with a steady loss of national sovereignty in a number of areas.¹¹ Monetary policy independence was gradually lost as countries were forced to take more and more account of the constraints imposed by the ERM, while fiscal policy was constrained first by the convergence criteria and then by the Growth and Stability Pact. In addition, countries were required to open their capital and labor markets to other members, without which the full benefits of a currency union cannot be realized. Finally, the European Commission was given the task of harmonizing a wide range of commercial standards and of ensuring that capital and labor markets were opened to other members of the Union.

¹¹In this respect, the ASEAN countries' starting point would appear to be more distant from the potential objective of a common currency than was the case for the EMU countries, in light of the original understanding that, although ASEAN member countries may agree to broad objectives, ASEAN would not guide national policies.

A firm political commitment would seem to be the key to ensuring that an attempt to form a regional currency arrangement is not viewed as simply another fixed exchange rate regime, open to speculative crises. These considerations may be particularly pertinent to ASEAN, especially given the recent Asian crisis, the lack of a natural focal point for macroeconomic policies, and the diversity of levels of development. Such a political commitment will need to be strong enough to stay the course over a long time period, and will involve taking difficult policy decisions such as making central banks independent, adhering to fiscal and exchange rate arrangements even if the policy stance conflicts with that which would be adopted on the basis of purely domestic considerations, and accepting supranational directives on issues such as factor mobility and competition policy. Should a group of ASEAN countries decide to move toward a single currency, a firm political commitment would greatly improve the chances of success of such a project.

Table 1. Macroeconomic Indicators in ASEAN and EMU countries.

	1988-97 Average						1997						
	Inflation Rate	Central government		General government		GDP	Inflation Rate	Central government		General government		GDP	Total
	(in %)	Balance (Percent of GDP)	Debt ¹ (Percent of GDP)	Balance (Percent of GDP)	Debt (Percent of GDP)	per capita at PPP ²	(in %)	Balance (Percent of GDP)	Debt (Percent of GDP)	Balance (Percent of GDP)	Debt ³ (Percent of GDP)	per capita at PPP ²	Population (In millions)
ASEAN													
Brunei Darussalam	2.4	-1.3	n.a.	-1.9	n.a.	n.a.	1.7	-0.3	n.a.	-0.3	n.a.	n.a.	0.3
Cambodia	61.4	-5.4	n.a.	-5.4	n.a.	402	8.0	-4.3	n.a.	-4.3	n.a.	483	10.5
Indonesia	8.1	0.0	38.3	0.0	n.a.	3434	6.6	-0.7	n.a.	-0.7	74.0	4654	200.6
Laos	19.8	-5.5	n.a.	-6.1	n.a.	2046	19.3	-6.4	n.a.	-6.4	n.a.	2649	5.1
Malaysia	3.0	0.2	n.a.	1.5	n.a.	8487	2.7	2.6	n.a.	6.0	48.0	11730	21.5
Myanmar	23.6	-4.3	n.a.	-6.2	n.a.	634	10.0	-4.3	n.a.	-6.0	n.a.	845	46.4
Philippines	10.2	-1.4	55.0	-1.6	n.a.	2613	6.0	-1.0	55.7	-1.0	38.0	3097	72.3
Singapore	2.4	10.5	78.5	11.5	69.5	18457	2.0	10.4	n.a.	10.4	n.a.	25882	3.2
Thailand	5.1	1.8	12.2	1.9	n.a.	6241	5.6	-1.6	4.5	-1.6	30.0	8435	60.8
Vietnam	66.2	-2.4	n.a.	-2.7	n.a.	156	3.2	-0.9	n.a.	-0.9	n.a.	223	76.5
Average	20.2	-0.8	46.0	-0.9	n.a.	4719	6.5	-0.6	20.1	-0.5	38.0	6444	49.7
Standard deviation	24.1	4.7	27.9	5.2	n.a.	5859	5.3	4.6	36.2	5.2	19.1	8247	60.6
Euro Area													
Austria	2.5	-3.9	n.a.	-3.3	62.8	18321	1.3	-2.6	n.a.	-1.9	64.4	21804	8.1
Belgium	2.4	-5.5	122.8	-5.1	128.3	18000	1.6	-2.4	n.a.	-1.9	121.9	21394	10.0
Finland	3.1	-5.1	38.0	-1.7	41.1	16569	1.2	-4.3	n.a.	-1.4	55.5	20133	5.1
France	2.4	-2.9	n.a.	-3.5	44.5	19078	1.2	-2.6	n.a.	-3.0	57.8	22351	57.9
Germany	2.8	-1.7	32.0	-2.6	50.3	17555	1.8	-1.8	39.2	-2.7	61.3	20755	81.9
Ireland	2.5	-1.6	n.a.	-1.6	89.5	13453	1.5	-0.5	n.a.	1.2	66.9	20036	3.5
Italy	4.9	-8.5	81.5	-8.4	113.3	17789	1.7	-2.7	n.a.	-2.7	122.3	20923	56.6
Luxembourg	2.5	n.a.	3.7	2.3	5.9	30297	1.4	n.a.	n.a.	1.7	6.7	38578	0.4
Netherlands	2.2	-4.2	61.8	-3.4	78.1	17699	2.2	-2.2	59.4	-0.9	71.4	21554	15.6
Portugal	7.6	-4.3	6.2	-4.4	63.9	10682	2.2	-2.8	n.a.	-2.5	61.4	13543	9.3
Spain	5.0	-3.6	43.7	-4.6	57.1	13128	2.0	-2.1	n.a.	-2.6	69.3	15910	38.8
Average	3.4	-4.1	43.3	-3.3	66.8	17506	1.6	-2.4	49.3	-1.5	69.0	21544	287.2
Standard deviation	1.7	2.0	39.6	2.6	34.4	5002	0.4	1.0	14.2	1.6	31.6	6261	27.9

Source: World Economic Outlook and World Development Indicators.

¹ For most EMU countries, average is calculated for years in which data were available: 1988-95 for Belgium, 1988-96 for Finland, 1991-97 for Germany, 1988, 1991 and 1992 for Italy, 1988-1993 for Luxembourg, 1993-1996 for Portugal and 1988-1995 for Spain.² Figures are in US Dollars.³ For ASEAN countries, data refer to 1998 and were drawn from J.P. Morgan.

Table 2. Regional Trade Patterns, 1980 – 1998 (Selected Years)

(In percent of total regional GDP)

	1980		1985		1990		1995		1998	
	Exports	Imports	Exports	Imports	Exports	Imports	Exports	Imports	Exports	Imports
ASEAN¹										
Within ASEAN	5.6	4.2	5.8	4.9	7.6	6.9	10.6	8.8	11.7	11.8
With Japan	9.5	6.5	7.8	5.8	7.6	10.5	6.2	11.7	5.9	8.3
With the US	5.2	4.4	6.0	4.3	7.8	6.6	8.1	6.8	10.9	6.8
With Euro Area	3.4	2.8	2.6	2.8	4.7	5.1	4.7	5.5	6.3	4.3
With Other Industrial Countries	2.0	3.0	1.9	2.7	3.0	4.5	3.0	4.0	4.5	3.3
With Other Developing Countries	6.5	8.3	6.6	7.6	9.3	11.5	10.5	11.9	13.4	14.0
Euro Area²										
Within Euro Area	11.4	11.3	12.5	12.3	12.6	12.4	12.4	11.4	12.8	12.0
With Japan	0.2	0.6	0.3	0.8	0.5	1.0	0.5	0.9	0.4	1.0
With the US	1.1	2.0	2.4	1.9	1.4	1.6	1.4	1.5	2.0	2.0
With Other Industrial Countries	4.2	4.0	5.3	4.6	4.5	3.9	4.4	3.8	5.0	4.2
With Other Developing Countries	5.3	7.6	5.6	6.9	4.0	4.5	5.2	4.7	5.8	5.6
Mercosur³										
Within Mercosur	1.1	1.1	1.0	1.0	1.0	1.1	1.8	1.8	2.1	2.3
With US	1.1	1.9	2.8	1.4	1.7	1.2	1.2	1.8	1.2	2.2
With Euro Area	2.0	1.7	3.0	1.2	2.4	1.2	1.7	2.0	1.7	2.3
With Other Industrial Countries	1.0	1.4	1.5	1.0	1.2	0.9	1.2	1.2	0.9	1.4
With Other Developing Countries	2.0	3.3	3.7	2.7	2.0	1.6	2.1	2.0	2.0	2.0
NAFTA⁴										
Within NAFTA	3.1	3.5	3.0	3.4	3.4	3.5	4.8	4.9	5.3	5.4
With Japan	0.8	1.1	0.6	1.7	0.9	1.6	0.9	1.7	0.7	1.5
With Euro Area	1.6	1.1	0.9	1.3	1.3	1.4	1.2	1.5	1.2	1.7
With Other Industrial Countries	0.9	0.8	0.6	0.8	0.8	0.8	0.8	0.8	0.8	0.8
With Other Developing Countries	2.7	3.9	1.7	2.6	1.9	3.0	2.7	3.8	2.5	4.0

Source: International Monetary Fund, Direction of Trade Statistics. World Economic Outlook.

¹ ASEAN: Cambodia, Indonesia, Laos, Malaysia, Myanmar, Philippines, Singapore, Thailand and Viet Nam (Brunei data are not available).

² Euro Area: Austria, Belgium, Finland, France, Germany, Ireland, Italy, Luxembourg, Netherlands, Portugal and Spain.

³ Mercosur: Argentina, Brazil, Paraguay, Uruguay, and associate members Bolivia and Chile.

Table 3. Correlations of Aggregate Supply Shocks

East Asia (1968-96)											
	Malaysia	Indonesia	Singapore	Philippines	Thailand	Hong Kong SAR	Japan	Taiwan	Korea	Australia	New Zealand
Malaysia	1.00										
Indonesia	0.49	1.00									
Singapore	0.40	0.32	1.00								
Philippines	0.05	0.16	0.01	1.00							
Thailand	0.02	0.16	0.33	0.14	1.00						
Hong Kong SAR	0.12	0.40	0.42	0.00	0.33	1.00					
Japan	-0.02	0.03	0.02	0.03	0.32	-0.23	1.00				
Taiwan	0.00	0.32	0.42	0.15	0.54	0.40	0.23	1.00			
Korea	0.17	0.11	0.21	0.07	0.21	0.18	0.17	0.01	1.00		
Australia	0.00	0.14	0.08	-0.16	0.25	0.13	0.36	0.27	0.04	1.00	
New Zealand	0.04	0.22	0.19	-0.01	0.21	0.00	0.22	0.07	0.01	0.07	1.00

Western Europe (1969-89)															
	Germany	France	Netherlands	Belgium	Denmark	Austria	Switzerland	Italy	United Kingdom	Spain	Portugal	Ireland	Sweden	Norway	Finland
Germany	1.00														
France	0.52	1.00													
Netherlands	0.54	0.36	1.00												
Belgium	0.62	0.40	0.56	1.00											
Denmark	0.68	0.54	0.56	0.37	1.00										
Austria	0.41	0.28	0.38	0.47	0.49	1.00									
Switzerland	0.38	0.25	0.58	0.47	0.36	0.39	1.00								
Italy	0.21	0.28	0.39	0.00	0.15	0.06	-0.04	1.00							
United Kingdom	0.12	0.12	0.13	0.12	-0.05	-0.25	0.16	0.28	1.00						
Spain	0.33	0.21	0.17	0.23	0.22	0.25	0.07	0.20	0.01	1.00					
Portugal	0.21	0.33	0.11	0.40	-0.04	-0.03	0.13	0.22	0.27	0.51	1.00				
Ireland	0.00	-0.21	0.11	-0.02	-0.32	0.08	0.08	0.14	0.05	-0.15	0.01	1.00			
Sweden	0.31	0.30	0.43	0.06	0.35	0.01	0.44	0.46	0.41	0.20	0.39	0.10	1.00		
Norway	-0.27	-0.11	-0.39	-0.26	-0.37	-0.21	-0.18	0.01	0.27	-0.09	0.26	0.08	0.10	1.00	
Finland	0.22	0.12	-0.25	0.06	0.30	0.11	0.06	-0.32	-0.04	0.07	-0.13	-0.23	-0.10	-0.08	1.00

Sources: Authors' calculations; and Bayoumi and Eichengreen (1994).

Notes: ASEAN members are reported in bold.

Table 4. Size and Speed of Adjustment to Disturbances

	<u>Aggregate Supply Disturbances</u>		<u>Aggregate Demand Disturbances</u>	
	Size	Speed of Adjustment	Size	Speed of Adjustment
East Asia (1968-98)				
Malaysia	0.042	1.14	0.042	1.23
Indonesia	0.067	1.19	0.138	0.74
Singapore	0.057	0.75	0.077	1.37
Philippines	0.074	0.80	0.075	0.79
Thailand	0.304	0.14	0.063	1.08
Hong Kong SAR	0.046	0.90	0.054	1.08
Japan	0.116	0.18	0.019	0.54
Taiwan	0.034	1.09	0.056	0.94
Korea	0.077	0.16	0.030	0.41
Australia	0.022	0.43	0.047	0.43
New Zealand	0.044	0.60	0.073	0.51
Western Europe (1969-89)				
Austria	0.018	1.00	0.017	0.42
Belgium	0.028	0.67	0.020	0.51
Denmark	0.022	1.10	0.017	0.14
Finland	0.018	0.88	0.027	0.68
France	0.034	0.24	0.014	0.10
Germany	0.022	1.19	0.015	0.66
Ireland	0.021	1.22	0.038	0.38
Italy	0.030	0.43	0.036	0.38
Netherlands	0.033	0.69	0.019	0.51
Norway	0.031	0.65	0.034	0.70
Portugal	0.061	0.43	0.026	0.37
Spain	0.057	0.08	0.015	0.12
Sweden	0.030	0.26	0.012	0.42
Switzerland	0.031	1.00	0.016	0.86
United Kingdom	0.018	0.43	0.019	0.02

Notes: Staff calculations and Bayoumi and Eichengreen (1994), cited in text. ASEAN members reported in bold.

Table 5. Bilateral Real Exchange Rate Variability Associated with Fundamentals
(*In percent*)

Selected ASEAN Countries, 1995

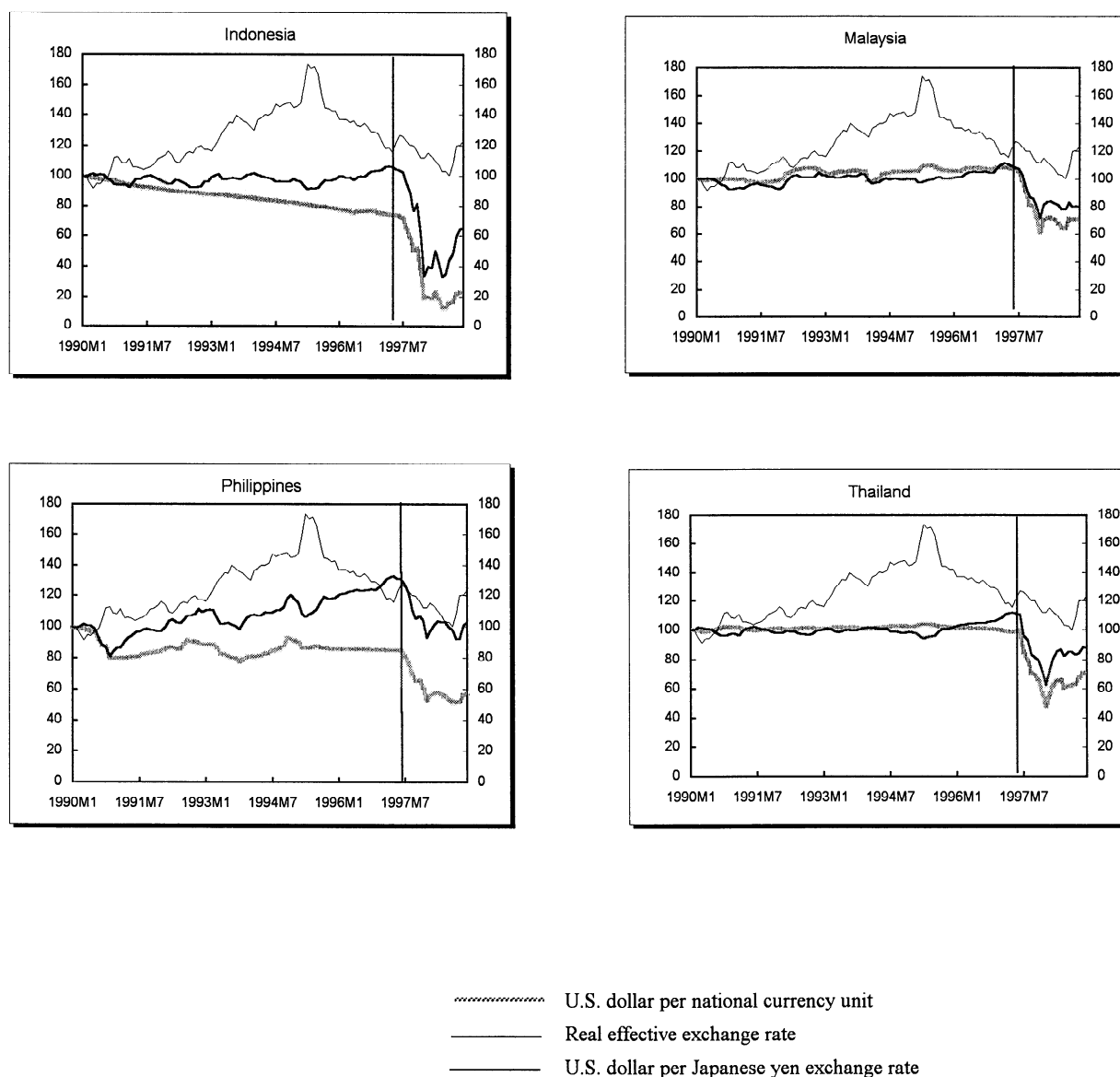
	Indonesia	Malaysia	Philippines
Malaysia	11		
Philippines	11	10	
Thailand	11	9	8

Selected European Countries, 1987

	Germany	France	Italy
France	7		
Italy	7	6	
Spain	9	6	n.a.

Source: Bayoumi and Eichengreen (1997) and Eichengreen and Bayoumi (1998), cited in text.

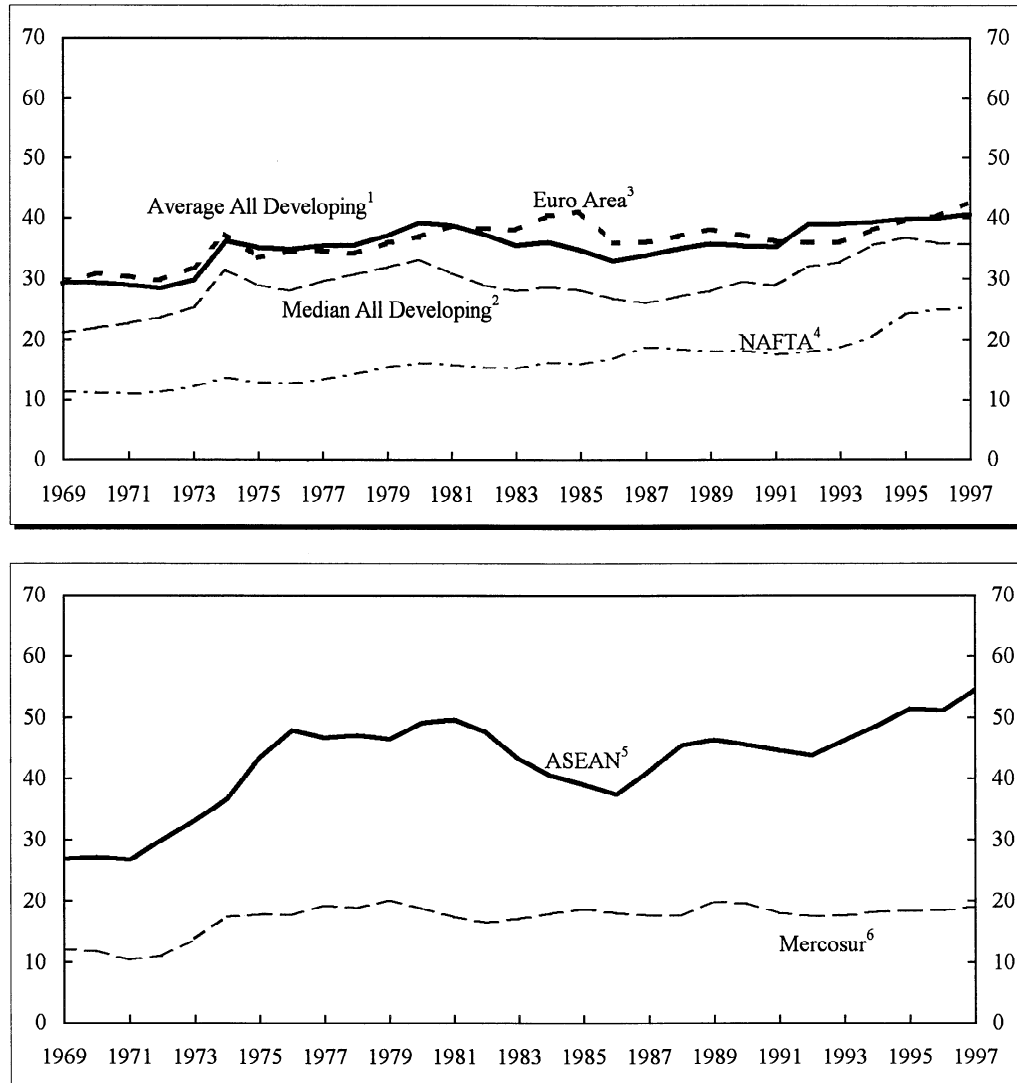
Figure 1. Selected ASEAN Countries: Real and Nominal Exchange Rates,
January 1990 - December 1998¹



Sources: International Monetary Fund, Information Notice System.

¹ A fall in the series indicates a depreciation relative to the U.S. dollar while a rise in the series indicates an appreciation relative to the U.S. dollar.

Figure 2. Advanced and Developing Countries: Measures of Openness of Economies, 1969-97



Source: International Monetary Fund, World Economic Outlook.

¹ The unweighted average across countries of exports and imports (divided by two) in percent of GDP.

² The median value of country's exports and imports (divided by two) in percent of GDP.

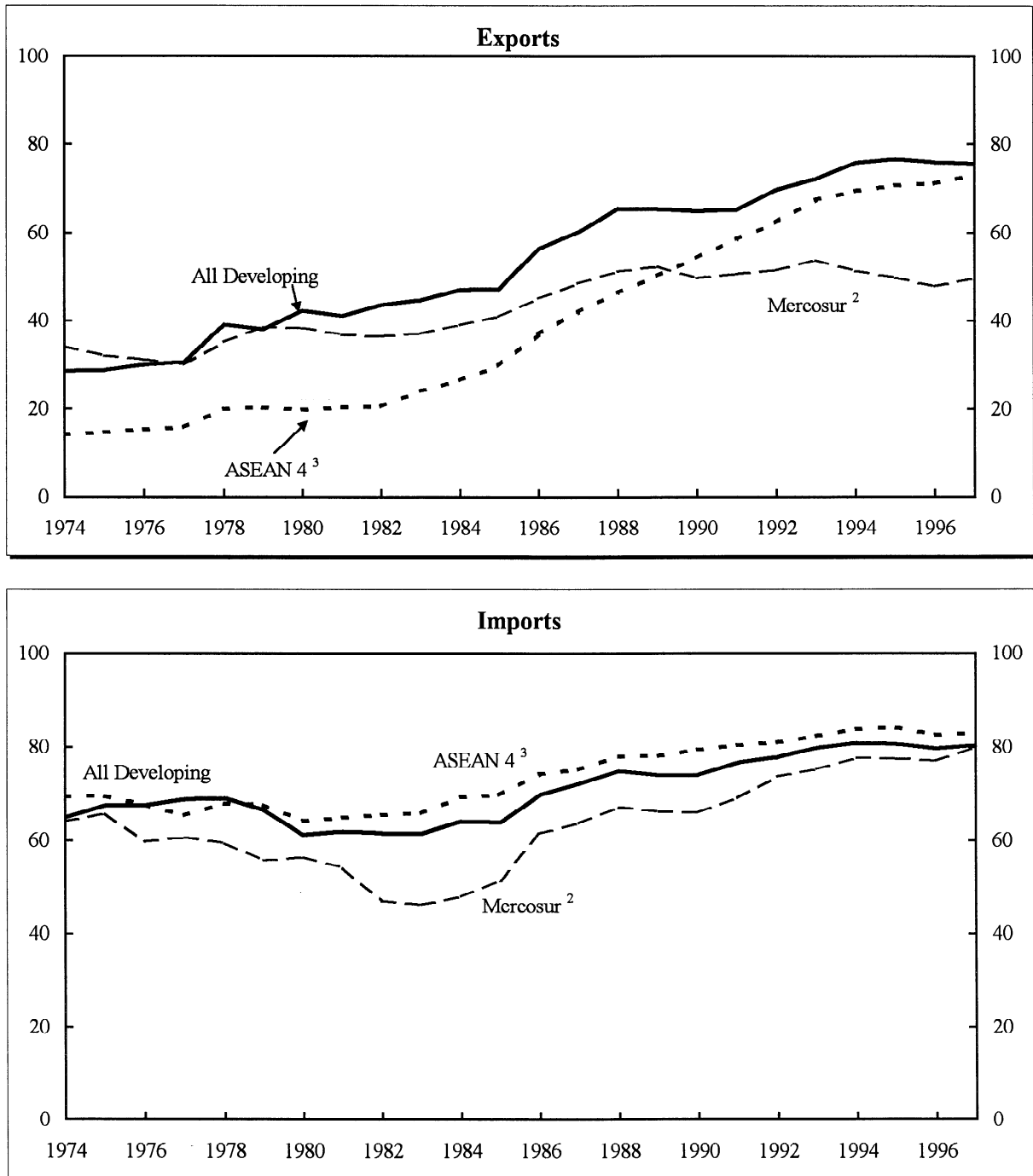
³ Euro Area: Austria, Belgium-Luxembourg, Finland, France, Germany, Ireland, Italy, Netherlands, Portugal and Spain.

⁴ NAFTA: Canada, Mexico and the United States.

⁵ ASEAN: Cambodia, Indonesia, Laos, Malaysia, Myanmar, Philippines, Singapore, Thailand and Viet Nam. (Brunei data not available).

⁶ Mercosur: Argentina, Brazil, Paraguay and Uruguay, as well as associate members Bolivia and Chile.

Figure 3. Developing Countries: Share of the Manufacturing Sector in Total Trade¹, 1974-1997



Source: United Nations, Trade Analysis and Reporting System.

¹ The sum of the following SITC categories: (5) chemicals, (6) basic manufactures, (7) machines and transport equipment, (8) miscellaneous manufactured goods, and (9) goods not classified by kind, in percent of total trade.

² Mercosur: Argentina, Brazil, Paraguay and Uruguay, as well as associate members Bolivia and Chile.

³ ASEAN 4: Indonesia, Malaysia, Philippines and Thailand.

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