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# Costs and Benefits of a Common Currency for ASEAN

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May 2002

Asian Development Bank

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May 2002

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#### **Foreword**

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#### **Abstract**

Since the 1997 Asian financial crisis, a popular view among academic economists and policymakers is that developing countries with open capital accounts have only two options in their exchange rate regimes: either float the exchange rate freely or fix it hard. Within a fixed exchange rate regime, two variants can be conceived: (i) a currency board arrangement or its equivalent, the domestic usage of the currency of another country; and (ii) adoption of a new common currency by a group of countries, or the formation of a monetary union. This paper assesses the costs and benefits of the second variant for the Association of Southeast Asian Nations (ASEAN). The paper concludes that although the constraints on the adoption of a common currency by ASEAN are formidable, the long-run goal of a common currency for the region may be worth considering seriously, especially because, judged by the criterion of optimum currency area, the region is as suitable for the adoption of a common currency as Europe was prior to the Maastricht Treaty.

#### I. INTRODUCTION

he 1997 Asian financial crisis has brought into sharp focus questions about appropriate exchange rate regimes for the economies in the region. In the aftermath of the crisis, with the notable exception of Malaysia, many countries in the region have now shifted toward greater flexibility in their exchange rates, although, for various reasons including the "fear of floating", official interventions in the foreign exchange market to stabilize rates are not uncommon. While these countries are experimenting with changes in the exchange rate regimes, a lively debate is continuing on the choice of appropriate exchange rate regimes for developing countries.

Since the Asian crisis, a popular view among academic economists and policymakers is that developing countries with open capital accounts have a bipolar solution to the exchange rate dilemma they face: a free float or a hard peg. This paper assesses the costs and benefits of a hard peg, specifically the use of a common currency or formation of a monetary union, for the Association of Southeast Asian Nations (ASEAN).

Given that the adoption of a common currency, or the formation of a currency union, was the last step in a sequence of policy initiatives toward regional economic integration in Europe that spanned more than four decades, the ASEAN may perhaps be a long way away from adopting a common currency. Yet, a debate on the adoption of a common currency by these countries is slowly emerging especially in the aftermath of the Asian crisis and after the single currency for Europe, the Euro, became a reality beginning 1999.

This paper aims to integrate and synthesize key conclusions in the literature and raise certain issues for further debate and research, rather than break new grounds through fresh research. The assessment is largely organized around some of the well-known results, both theoretical and empirical, of works on optimum currency area (OCA).

The paper is organized as follows. Section II presents the theoretical and empirical perspectives from the OCA literature. Section III examines the suitability of ASEAN for adoption of a common currency and Section IV assesses the key constraints on such adoption. Section V concludes by placing the issue in a broader global perspective.

#### II. PERSPECTIVES ON OPTIMUM CURRENCY AREA

According to the OCA literature, the key economic cost from formation of a currency union by a group of countries is the loss of national autonomy in monetary policy. Under a currency union, there is no scope for independent monetary policies by the member countries of the union. However, the cost associated with the loss of monetary independence depends upon how well the individual countries were conducting monetary policy prior to joining the currency union.

Many developing countries with open capital accounts have several constraints in the effective conduct of an independent monetary policy. This is especially so in developing countries with thin capital markets and weak central banking institutions. In general, the record of developing countries in conducting independent national monetary policies to minimize cyclical fluctuations in economic activity has been somewhat patchy. This suggests that the economic loss from giving up an independent monetary policy may not be very large for such countries. On the contrary, a currency union may, in fact, elicit commitment to greater macroeconomic stability from countries that otherwise have a mixed track record in implementing monetary policy prior to joining the currency union (Barro 2001). It is possible that this benefit will compensate for the loss of monetary policy autonomy.

The major benefit of a common currency that has been emphasized is that it facilitates trade (in both goods and services) and investment among the countries of the union (and hence increases income growth within the region) by reducing transaction costs in cross-border business, and removing volatility in exchange rates across the union. A currency is like language (Barro 2001). As a common language facilitates effective communication among people, a common currency could promote trade and investment among countries. In an environment of different currencies, transaction costs, including the costs of obtaining information about prices, would be higher. This would be a disincentive to trade, commerce, and investment.

Moreover, under floating exchange rate regimes—the alternative to a fixed exchange rate regime—exchange rates tend to be more volatile than is warranted by the economic fundamentals of an economy (Rose 1994, Williamson 1999, Bergsten and Henning 1996, Collignon 1999). This is especially true of small developing economies with thin capital markets. Developing countries with large unhedged foreign currency liabilities (original sin), therefore, often "fear to float." Monetary policies in such countries tend to be pro-cyclical rather than counter-cyclical. Belying the expectations of advocates of floating exchange rate regimes, flexible exchange rates have often become a source of shocks rather than shock absorbers. "Market errors" and the consequent misalignments in exchange rates under floating exchange rate regimes have been substantial (Breur 1994). Disproportionate volatility in exchange rates increases uncertainty, discourages trade, diminishes investment, and reduces overall economic growth (Kenen and Rodrik 1986, Huizinga 1994, Corbo and Cox 1995). It is possible to mitigate some of these adverse effects of floating exchange rates by hedging against exchange rate fluctuations. However, hedging involves nonnegligible transaction costs (Adler 1996, Friberg 1996, Rajan 2000). Development of perfect hedging instruments may even be difficult in practice. This may explain why in a 1992 survey of nonfi-

nancial Fortune companies, while 85 percent of the respondents hedged, only 22 percent hedged fully (Rajan 2000).

A common currency could mitigate some of these adverse effects of a floating exchange rate system. From a purely economic point of view, a set of countries should opt for a common currency if the cost of losing national autonomy in monetary policy is mitigated by the benefits of a currency union. While it is difficult to quantify these costs and benefits, the OCA literature offers some guidelines to compare them. The benefits of a currency union increase and/or the costs decrease with (i) greater flexibility in wages and prices among the countries of the union, (ii) greater mobility of factors of production (labor and capital) across countries, (iii) more symmetric shocks across countries, (iv) more openness among the economies within the union, and (iv) larger share of trade among the countries of the region.

A composite index of some of these determinants of the relative costs and benefits of a currency union, known as the OCA index, has been used to assess the suitability of a set of countries for adoption of a common currency. These OCA indicators should, however, be used with caution because they are not necessarily independent of the prevailing exchange rate regime (Eichengreen 1996, Frankel and Rose 1997, Rose 2000, Glick and Rose 2001). The OCA indicators, in other words, could be endogenous to the exchange rate regime. Endogeneity of the OCA indicators can arise due to a variety of reasons. Two of these deserve special mention.

First, to the extent that a common currency promotes greater trade among countries, openness and the volume of intra-union trade will be greater under a common currency than under a regime of floating exchange rates. This will make the degree of openness and the volume of intra-union trade endogenous to the exchange rate regime. Early estimates of the effect of exchange rate regimes on trade were generally small and modest at best (Kennen and Rodrik 1986, Huizinga 1994, Corbo and Cox 1995). However, more recent studies find substantial positive effect of a common currency regime on trade (Rose 2000, Glick and Rose 2001, and Rose and Wincoop 2001).

Second, the degree of flexibility of wages in the labor markets and the prices in the product markets are likely to be larger under a credible currency union than under a floating exchange rate regime. This is a broader application of the well-known Lucas principle that states that the very structure of an economy may be affected by changes in the policy regime. This is not to suggest that wages and prices will become perfectly flexible once exchange rates across countries are locked in, but that wage and price setters will adapt in order to avoid increases in unemployment to levels that would provoke resistance to continued participation in the currency union (Eichengreen 1996). Historical evidence tends to support such a market response. For example, the response of labor and product market prices to shocks was found to be faster under the gold standard than under monetary regimes characterized by greater exchange rate variability (Bayoumi and Eichengreen 1996).

#### III. THE SUITABILITY OF ASEAN FOR A COMMON CURRENCY

Is ASEAN suitable for adopting a common currency? While it is difficult to quantify the costs and benefits, applying the guidelines of the OCA literature shows there are several characteristics of the ASEAN that suggest that the benefits of a common currency may be significant relative to the costs.

In terms of the cost of giving up independent monetary policy, in practice, given the somewhat mixed track record of many of these countries in conducting monetary policy, the costs of surrendering monetary autonomy are unlikely to be large: At least some of them may perhaps be giving up something that they do not have! In fact, as a result of forming a currency union, there is a possibility that some of the countries that now have a patchy track record of inflation control and exchange rate management could benefit substantially from a monetary policy conducted by a more credible regional central bank. Such a convergence to best (or better) practices in monetary policy in the region will be a benefit, not a cost.

In terms of factor mobility, ASEAN compares favorably with the European Union (EU) at the time of the Maastricht Treaty. ASEAN has relatively high labor mobility as well as capital mobility (Goto and Hamada 1994; Eichengreen and Bayoumi 1999; Moon, Rhee, and Yoon 2000). For example, workers from Indonesia, Malaysia, Philippines, and Thailand account for 10 percent of the employment in Singapore. Emigration has been as much as 2 percent of the labor force of the sending countries.

Compared to the EU, ASEAN also ranks quite high in terms of wage and price flexibility. In fact, traditionally they are known for their flexibility and speed of adjustment to shocks. According to Bayoumi and Eichengreen (1994), almost all of the change in output and prices in response to a shock in East Asia takes place in about two years. By comparison, in Europe, only about half the adjustment occurs in the first two years after a shock. These results are consistent with the general impression that labor markets are more flexible in ASEAN than in Western Europe.

Many ASEAN countries have trade-to-GDP ratios as well as trade-intensity ratios (which normalize bilateral trade by the relative share of the countries in total world trade to eliminate size effects) that are higher than in Western Europe (Goto and Hamada 1994, Kawai and Takagi 2000). At close to 25 percent, the share of intraregional trade in ASEAN total trade, although lower than in the EU (40 percent), is significant and rising (Bayoumi and Mauro 1999). It is much higher than in some of the other currency unions such as the Eastern Carribean Currency Union (about 10 percent), the Western Africa Economic and Monetary Union (about 10 percent), and the Central African Economic and Monetary Community (about 3 percent).

Although there are intercountry differences, the symmetry in shocks among the countries in the region is comparable to the EU (Eichengreen and Bayoumi 1999). The regionwide economic slowdown in 2001 in response to the global economic downturn is another evidence of the high degree of shock symmetry among these countries. The high degree of shock symmetry reflects both the high degree of openness (export orientation, capital flows etc.) and the similarities in the production structures among these economies.

Overall, composite OCA indices for the region, which take into account intraregional trade, wage-price flexibility, labor mobility, and shock symmetry, are similar to those for the EU (Eichengreen and Bayoumi 1999). Using a variety of indicators drawn from the OCA literature, Eichengreen and Bayoumi conclude that from a purely economic perspective, East Asia/ASEAN is as suitable for an OCA as Europe was prior to the Maastricht Treaty.

#### IV. CONSTRAINTS ON THE ADOPTION OF A COMMON CURRENCY

None of the empirical evidences presented above should make one disregard some of the key constraints on locking in the exchange rates and adopting a common currency over the long run. Sustaining a common currency may be even more difficult than adopting it. Four constraints that have generally been mentioned in discussions are worth special attention: (i) diversity in the level of economic development across countries, (ii) weaknesses in the financial sectors of many countries, (iii) inadequacy of region-level resource pooling mechanisms and institutions required for forming and managing a currency union, and (iv) lack of political preconditions for monetary cooperation and a common currency.

The diversity in the level of economic development among the ASEAN countries is quite large. Singapore, the richest country in the group, has a per capita income close to 300 times the per capita income of Myanmar, the poorest country in the group. Even among the ASEAN-5 (Indonesia, Malaysia, Philippines, Singapore, and Thailand), the per capita income of Singapore is about 40 times the per capita income of Indonesia. This degree of diversity is higher than among the countries of the EU. It is sometimes argued that such a high degree of income differentials could make it difficult to sustain a monetary union among these countries. However, it is important to note that what is important for the adoption of a common currency among countries is that relative prices and outputs across them should have high co-movements following an economic shock, not so much that the levels of income should be more equal across them. For even if the countries in a monetary union have perfect equality of per capita incomes, if the co-movement of relative prices and outputs across countries is low, conducting a common monetary policy for the union as a whole is difficult. On the other hand, even if per capita incomes across countries in a monetary union are vastly different, but their co-movement following an economic shock is very high, conducting a common monetary policy is much less problematic. Income differentials across countries could pose a constraint to the conduct of a common monetary policy only to the extent that they reflect the dissimilarities in the production structures across countries (and hence movements in relative prices and outputs across them). However, it is important to note that some of the populous countries in the world, e.g., People's Republic of China (PRC), India, Indonesia, or United States, also exhibit large intraregional income differentials within them. Yet, each of these countries uses a single currency.

If countries with diverse subregions can adopt a common currency, why not a region with diverse countries? The answer perhaps lies in the fact that (i) labor and capital are freely mobile

within a country (although formal labor mobility across subregions in the PRC are constrained by official restrictions), but are not necessarily so across countries; and (ii) the budget and fiscal policy can, within limits, be used to bring about inter-regional resource transfers within a country, another adjustment mechanism that is often difficult to operate across countries. To manage a currency union for a group of countries with a large difference in level of development, it is, therefore, important to allow a freer flow of capital and labor across borders. This is an area that would need concerted efforts by the ASEAN governments. Member countries will have to evolve policies and mechanisms that would allow greater mobility of both capital and labor across national borders, in addition to the freer movement of goods allowed under the free trade arrangement within the region.

As for fiscal policy, it is difficult to have a large centralized budget at the union level to make resource transfers across countries. The greater mobility of factors of production should reduce the need for large fiscal transfers over the medium to long term. However, in the short run labor mobility cannot be relied upon to take care of asymmetric shocks across countries in a currency union. Country-specific fiscal policies can be used to respond to asymmetric shocks across countries within the union. However, the scope for country-specific discretionary fiscal policies within a currency union would be limited if there is a ceiling on fiscal imbalances, as is the case in the European Union under the Stability and Growth Pact. Since historically fiscal irresponsibility has proven to be the waterloo of monetary cooperation many times, it is perhaps desirable to restrict fiscal autonomy within a currency union by using mechanisms similar to the European Union's Stability and Growth Pact, but with greater flexibility at the national level. One such option could be to allow automatic fiscal stabilizers at the national levels to move the fiscal balance in a counter-cyclical fashion (worsening during economic downturns and improving during economic upturns) but within certain broad limits.

One of the lessons from some of the emerging market financial crises is that when countries with weak banking and financial sectors and heavy dependence on foreign capital peg their exchange rates, banking problems could turn into an exchange rate crisis (Eichengreen and Bayoumi 1999). A weak banking system could, therefore, undermine an exchange rate regime such as a common currency arrangement. Historically, banking problems have not been as pervasive among the ASEAN countries as in other emerging market economies. Yet, the 1997 financial crisis in Asia has exposed the fragility of the banking systems and the financial sectors of many countries in the region. Despite the progress in financial sector restructuring in the aftermath of the crisis, the remaining agenda of banking reforms is quite large. Significant further reforms and restructuring of the financial sectors and the banking systems will, therefore, be required among the ASEAN countries before they could adopt a common currency. There is, however, a positive side to this challenge. A currency union among these countries, accompanied by a regional integration of financial services, could enable countries with stronger banking systems to specialize in the provision of these services at the regional level. That would lead to greater harmonization of banking and financial sector practices across countries as well as raise the overall banking and financial sector standards across the region.

Inadequate mechanisms for regional reserve pooling as well as the absence of regional institutions could be another set of constraints on monetary cooperation and common currency among the East Asian countries. The reserve sharing arrangements under the Chiang Mai Initiative constitute a modest beginning in addressing this constraint. Yet, a common currency for the region would require much greater reserve pooling and sharing among the countries than is currently possible under the Chiang Mai Initiative. Europe established a whole gamut of institutions such as the European Council, European Commission, and European Central Bank to manage regional resource sharing and to coordinate the monetary union. It took decades of experimentation in Europe to establish these institutions. Given the almost total absence of institutions to support regional monetary cooperation in East Asia, developing the regional institutions to manage a common currency is likely to be a major challenge. Once again, there is a positive side to this challenge: the region can benefit from decades of European experience. It can "leapfrog" in developing the regional reserve sharing mechanisms and the institutions, if there is enough political support for a regional currency union. That brings one to another key constraint: lack of political preconditions for a currency union in the ASEAN.

It is argued that while East Asia or the ASEAN may satisfy the economic requirements for an OCA as much as the EU does, it has not developed the political preconditions necessary for a common currency (Eichengren and Bayoumi 1999; Bayoumi, Eichengreen, and Mauro 2000). In Europe, the debate over monetary integration has gone hand in hand with discussions of political integration and creation of a supranational entity empowered to override sovereign national governments. At each stage of this political integration, national governments delegated a growing range of powers to the collectivity. Going by the European experience, developing political support and the institutions required for a currency union in the region, whether it is among ASEAN or among a broader group of countries, is likely to be a formidable challenge. One should not understate the difficulties of addressing this challenge. Yet, if the economic advantages of a regional monetary union are large, it is possible that countries may make political compromises so as to reap the economic benefits (Park 2001). Economic interests may persuade countries to set aside political differences and forge strategically beneficial political alliances. In other words, political support may not be exogenous to the economic outcomes, just as economic outcomes may not be independent of political factors. Economic and political integration in the region may, therefore, be a joint although gradual process spanning perhaps decades.

#### V. CONCLUSION

The issue of the costs and benefits of a common currency for the ASEAN needs to be placed in a somewhat global perspective. As Barro (2001) observes, three sets of factors are likely to encourage the initiation of currency unions across the globe in the future: (i) the increasing number of countries in the world; (ii) globalization; and (iii) the diminishing role of independent national monetary policies, especially for small countries.

At the end of World War II, there were 76 independent countries in the world. Today there are nearly 200. For many of the growing number of smaller countries, the costs of maintaining separate currencies and floating exchange rates are likely to be very high. For them, therefore, the net benefits from joining a monetary union (or simply using another country's currency) are likely to be significant (Barro 2001). This could encourage the formation of an increasing number of currency unions over time.

The increased pace of globalization (including the spread of trade in goods and services and financial transactions and the heightened diffusion of technology) is also likely to encourage the formation of currency unions. In an increasingly globalizing world, there is likely to be greater synchronization of business cycles across countries, and hence the net benefits of having fewer currencies to conduct cross-border business are likely to be larger. Moreover, as the world gets more integrated, the volume of transactions involving citizens of different countries will increase. As international transactions become a larger share of total global transactions, the attractiveness of common currencies relative to a multitude of sovereign currencies is likely to increase.

The benefit that economists and central bankers attribute to national monetary policies is also diminishing. There is growing skepticism about the usefulness of independent monetary policies, especially to smaller developing economies, for counter-cyclical stabilization purposes.

All these factors have the potential to increase political support for monetary and economic integration across countries. Overall, therefore, events may become more favorable to the formation of currency unions. Should the ASEAN be part of this likely global trend? It is time to ponder this question, even if one does not foresee a conclusive answer in the immediate future. For in case the answer turns out to be "yes", the challenges of forming an ASEAN currency union (or other regional groupings in Asia), including managing the transition phases, are likely to be formidable. The preparatory groundwork itself would involve considerable effort.

Going by international experience, the time required to complete the process is unlikely to be short either. Europe spent several decades in experimenting with regional monetary cooperation before adopting a monetary union. The task may be even more challenging for ASEAN. But it is important not to underestimate the Southeast Asian capacity for "time compression." During the last few decades, time and again, these countries have turned in economic achievements at an unprecedented speed. That record of achievement earned some of them the coveted title of miracle economies.

Despite the Asian crisis, the achievement of the ASEAN Free Trade Area (AFTA) in early 2002, much in advance of the original deadline of 2008, is yet another pointer to their capacity for "time compression." With the launching of the AFTA, ASEAN countries have crossed an important milestone: moving closer to what some would refer to as the "good neighbors' stage" of regionalism, in which participating countries abolish trade barriers and create a level playing field for cross-border movement of goods, services, and capital, but allow the pursuit of separate national economic agendas in other areas, especially in the areas of fiscal and monetary policies.

It is certainly a very challenging task for the ASEAN to move from the "good neighbors' stage" to the European "happy family stage" of regionalism, in which participating countries also

share a common currency; free flow of people across borders; and common institutions, both economic and political, which are required to manage the common currency. But, as is well known, regional monetary integration, by its very nature, is a long process involving a series of small, incremental, steps over time. Viewed from this perspective, the launching of the AFTA and the regional resource sharing arrangements under the Chiang Mai Initiative may perhaps possess the potential to gradually lead to greater regional monetary cooperation. Moreover, the ASEAN countries have the European experience behind them, and that could be an added advantage.

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