

Problems and Prospects of Optimum Currency Area in Asia

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Abstract: *In an environment of different currencies, transaction costs including the costs of obtaining information about prices, would be higher which would be a disincentive to trade, commerce and investment. Joining a monetary union can eliminate exchange rate risk, facilitate trade, makes price differences transparent among the member countries, sharpens competition and increases policy discipline. On the other hand, the key economic cost from formation of a currency union by a group of Asian countries is the loss of national autonomy in monetary union. Overall, composite Optimum Currency Area (OCA) indices for some of the Asian countries, especially the East Asia region, which take into account intraregional trade, wage-price flexibility, labor mobility, and shock symmetry, are similar to those for the European Union (EU). This paper finds the absence of a clear road map for monetary cooperation and the present process requires a deep abandonment of sovereignty and the setting-up of a common central bank. Finally this paper concludes that in view of the absence of institution building in Asian region, monetary unification is far-fetched.*

Introduction

A currency union zone consists of several countries or regions where (a) a single currency circulates; (b) a single monetary authority implements monetary policy defined at the union level; (c) a single exchange policy prevails; and (d) the single monetary authority maintains a common pool of reserves; (e) in the absence of political integration (Fabella, 2002). According to the Optimum Currency Area (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 since there is no scope for independent monetary policies by the member countries of the union under a 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 the developing countries with thin capital markets and weak central banking institutions. In general, the records of developing countries in conducting independent national monetary policies to minimize cyclical fluctuations in economic activity have been somewhat patchy. This suggests that the economic loss

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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. In Asia, especially after the financial crisis in 1997, increasing efforts have been made to promote regional monetary and financial cooperation. In 1999, ASEAN expanded itself into ASEAN plus three in 2001. ASEAN plus three launched Chiang Mai Initiative to ensure exchange rate stability among members and in 2003, decided to establish an ASEAN Economic Community (AEC) by 2020. The present paper has comprehensively examined the economic suitability for forming a monetary union within different blocks of Asia.

Theoretical and Empirical Background of Cost and Benefit of a Monetary Union

The OCA theory stems from the work of Mundell (1961). He assumed that (a) prices and wages are sticky and (b) countries are adverse to unemployment and inflation and defines a currency area as a 'domain within which exchange rates are fixed'. According to his theory, factors of mobility is positively related to suitability of forming a currency union. McKinnon (1963) considered trade integration and openness, defined as the ratio of tradables to non-tradables, as crucial criterion of optimality of monetary union. The more the participating countries are integrated by trade, the more open the economies and the more they are suitable for a monetary union.

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 greater flexibility in wages and prices among the countries of the union, greater mobility of factors of production (labor and capital) across countries, more symmetric shocks across countries, more openness among the economies within the union and larger share of trade among the countries of the region.

The feasibility of a common currency area can be tested by the criteria for an optimal currency area. Mundell (1961) regarded mobility of labor as a necessary condition of common currency areas, while McKinnon (1963)

regarded openness of the economy as another necessary condition. Symmetry of shocks was also pointed out as a factor for an optimal currency area (Bayoumi and Eichengreen, 1993). It is possible to form an optimal currency area because it is unnecessary to make intraregional adjustments in a region subject to symmetric shocks only. Symmetry of supply shocks is often emphasized because supply shocks have long-run effects on GDP while demand shocks have no long-run effects on GDP when the natural unemployment hypothesis holds. The supply shocks are those that affect a production function, such as productivity shocks and oil price shocks.

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. In terms of factor mobility, Asian countries especially the East Asian countries have 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.

Joining a monetary union can benefit a country's economy in a number of ways. First, it eliminates exchange rate risk with other monetary union members, which facilitates trade among them. Second, it makes price differences in member countries more transparent and therefore, sharpens competition. Third, it may increase policy discipline specifically, an individual country's central bank may become more credible in its commitment to price stability by delegating authority for monetary policy to a regional central bank. However, the principal cost of joining a monetary union is that an individual country's central bank loses independent monetary policy control and therefore, loses its ability to stabilize the economy when it is hit by a shock. Common currency removes volatility in exchange rates across the union. 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 (Rose, 1994).

Some empirical studies (Rose, 2000; Frankel and Rose 2000; Glick and Rose 2001) regarding costs and benefits of monetary union suggest that a

monetary union confers substantial benefits to trade. Rose (2000), in a cross-sectional study, showed that two countries that share the same currency, trade three times as much as they would do it with countries of different currencies. Glick and Rose (2001), in a time-series cross-sectional study found that bilateral trade rises/falls by about 100% as a pair of countries forms/dissolves a currency union. Frankel and Rose (2000) used economic and geographic data to show that belongingness to a currency union triples trades among the members countries. They also found that every 1% increase in trade (relative to GDP) raise income per capita by roughly one third over twenty years. Hence, their results support the hypothesis that the beneficial effects of currency unions on economic performance come through the promotion of trade rather than through a commitment to non-inflationary monetary policy or other macroeconomic influence. Rose and Engel (2002) found that members of international currency unions tend to experience more trade and less volatile exchange rates.

Problems and Possibilities of Forming Asian Currency Union

Compared to the EU, Asian countries also rank quite high in terms of wage and price flexibility. In fact, traditionally they are known for their flexibility and speed of adjustment to shocks. This result is consistent with the general impression that labor markets are more flexible in Asia than in Western Europe. Many Asian 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). Although there are inter country 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 of 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, different regions of Asia/ East Asia are suitable for an OCA as European condition was the same prior to the Maastricht Treaty.

There are some constraints for Monetary Union in Asia as well. First, In terms of income levels, stages of development and economic structures, Asian economies have less similarities than those of European nations. The implication is that achieving any monetary arrangement including a common currency, is much more difficult in Asia. Second, Asia is less economically self-contained than Europe. Economies in Asia, especially in the East Asia have developed and intra-regional trade has grown recently. But about half of the intraregional trade is trading of raw materials and intermediate components that are ultimately exported to outside the region. East Asian countries still depend much more heavily on exports to countries outside the region. Thus, East Asia must be more concerned than Europe about exchange rate stability against currencies outside the region as well as within the region. Third, the two regions differ in terms of interest in political integration. In Europe, a monetary union was achievable primarily because it was part of the larger process of political integration. Most European countries share a history of intellectual belief in the benefits of integration and political democracy. There is no apparent desire for political integration in Asia, partly because of the great differences among those countries in terms of political systems, culture, and shared history. The fourth difference is that, in contrast to Europe, Asian governments appear much more suspicious of strong supranational institutions. European Commission, the European Parliament preceded establishment of the European Central Bank. They were indispensable to providing the popular support for delegating monetary decisions to a common central bank. In contrast, in Asia, sovereignty concerns have left governments reluctant to delegate significant authority to supranational bodies, at least so far. Four constraints have generally been considered as obstacle for a common currency union. These are (a) diversity in the level of economic development across countries, (b) weaknesses in the financial sectors of many countries, (c) inadequacy of region-level resource pooling mechanisms and institutions required for forming & managing a currency union and (d) lack of political preconditions for monetary cooperation and a common currency.

The diversity in the level of economic development among the Asian countries is quite large. 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 the member countries. 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 Asia.

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 Asian countries. 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 Asia, developing the regional institutions to manage a common currency is likely to be a major challenge.

Some Empirical studies can be considered regarding Monetary Union in Asia especially in the East Asia. Bayoumi et al. (2000) made an empirical analysis of an optimal currency area in the East Asian region. In his study correlations of supply shocks were relatively higher among Indonesia, Malaysia and Singapore. Also, the correlation was higher between Singapore and Thailand. Therefore, these four ASEAN countries might be able to form an optimal currency area from the viewpoint of symmetric shocks. Supply shocks in Japan had a positive correlation with those of Australia, Taipei, China and Korea. They had a lower correlation with ASEAN countries except Thailand. Ogawa and Kawasaki (2002) used a Generalised Purchasing Power Parity (G-PPP)¹ model to conduct empirical analysis on the possibility of an optimal currency area in East

Ogawa and Kawasaki attempted to make an important contribution to the literature by introducing a new approach, a Generalised Purchasing Power Parity (G-PPP) model, to analyze whether a common currency basket can be adopted in "ASEAN plus three" countries. The G-PPP model assumes that a linear combination of some bilateral real exchange rates may have a stable long-run equilibrium, which reflects the commonality in shocks and a strong economic relationship among the countries.

Asia. The G-PPP model is an extension of a simple Purchasing Power Parity (PPP) model by taking into account difficulties in holding the PPP because of nominal and real shocks that have sustained effects on macro fundamentals. Theoretically it is not difficult to expect that the East Asia region might form a common currency area in the future. With the common currency basket as an anchor currency, it is found that at least five Asian countries can form a common currency area. On the other hand, five Asian countries (four countries with one exogenous country) are found to be able to form a common currency area with the US dollar as an anchor currency. If a number of countries that can form a common currency area are used to judge a more applicable anchor currency, empirical results suggest that the common currency basket is better as an anchor currency than the US dollar. Lee, Park and Shin (2002) and McKinnon and Schnabl (2004) also found that East Asia is not unsuitable for a currency union. While Chow and Kim (2000), Wyplosz (2001) argued that East Asia does not satisfy the preconditions for implementing a monetary union yet. Kwack (2004) propose to form a quasi-monetary block in East Asia due to differences among member countries. 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.

Monetary Union in South Asia

A similar level of economic development is crucial among potential members of a currency area in order to facilitate economic integration. Bangladesh has liberalized its economy progressively over the last decade, so that there exists enormous scope for the other Asian states to increase trade and investment links with it. Bangladesh and other SAARC countries structure of production are reasonably similar. Most of the SAARC countries have similar growth and inflation rates. Bangladesh along with other SAARC countries exhibits similar growth rates in money supply. Most of the countries have comfortable levels of foreign exchange reserves. As far as the value of domestic currency and flow of foreign direct investment (FDI) is concerned, the SAARC countries have experienced significant differences. Since Bangladesh and other member countries of SAARC currently have similar inflation rate, low current account deficits, similar growth, trade and production structure, it prods

to think of the possibility of monetary union in the region, even if not for all the SAARC countries, certainly for Bangladesh and some subgroup(s) of the member countries.

The benefits from an OCA accrue from a high level of intra-regional trade in the form of lower transaction costs. But the volume of intra-regional trade in South Asia is quite insignificant, resulting in a limited interdependence among the South Asian countries. The low level of intra-regional trade stands at odds with the openness of these economies to trade. However, further liberalization and intra-regional trade may be needed in order to gain the benefits of low transaction costs and elimination of exchange rate risk that accrue from using a common currency.

Since an entry into a monetary union means abandoning an independent monetary policy, it is essential for Bangladesh and other member countries to face similar economic shocks that would require a similar monetary policy response. Most of the SAARC countries do have similar production and export structure. Bangladesh and other SAARC countries are specialized in the production of few goods. If specialization is in the same goods, this in fact could be taken as an argument to form an OCA since they will be affected by similar shocks. Hence, these countries are more likely to experience symmetric external shocks. On analyzing the supply shocks, empirical studies find that the estimated correlation coefficients of supply shock for South Asia ranged between -0.46 and 0.42, while they ranged between -0.39 and 0.68 for Western Europe, -0.16 and 0.71 for East Asia, and -0.59 and 0.72 for the Americas (Saxena, 2002).

The OCA literature argues that labor mobility helps the members of a monetary union to adjust to asymmetric shocks by allowing labor to move from areas of high unemployment to low unemployment. It is argued that under free trade, smaller countries are expected to experience more trade gains that will bring all the economies in the region to converge in terms of macroeconomic performance. Also, in recent years, Bangladesh and other SAARC countries are doing well in terms of macroeconomic performance. There is a high and stable growth of output in the region. The key macroeconomic variables like inflation rates, exchange rates and fiscal deficits are converging. The ongoing macroeconomic reforms are the positive steps in the direction of monetary cooperation in the region.

Bangladesh and other South Asian countries can develop its own short, medium and long-term strategy for economic integration. It is important that each stage is implemented effectively before moving on to the next in order to build a sound foundation for progress. In this context the development of the European Union may be studied which is considered to be the most advanced model for regional grouping. The European integration evolved over four stages: First, a preferential free trade regime where member countries reduced or eliminated tariff and non-tariff barriers amongst them. Second, a Customs Union created a common external tariff so that import duties were the same for each member country. Economic Union was the third stage, which further integrated the market, eventually leading to a single market. The final step was a monetary union in which the national currencies of the member countries were replaced by a single currency. Already Bangladesh and South Asian countries crossed the first step by implementing SAFTA. But it is certainly a challenging task for Bangladesh and other SAARC countries to move from the "good neighbors' stage" to the European "happy family stage."

Conclusion

In order to strengthen international competitiveness and provide an engine of growth, the global economic integration has been complemented with a trend towards regional economic integration. The increased pace of globalization along with the spread of trade in goods and services and financial transactions and the heightened diffusion of technology are 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 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. 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. The task may be even more challenging for the Asian countries.

The member states of the SAARC have set as a target for the achievement of an economic union by 2020. Reaching this goal will require greater levels of monetary cooperation. In South Asia the member states have minor trade linkages and face asymmetrical patterns of shocks. This paper concludes that absence of a clear road map for monetary cooperation, the present process requires a deep abandonment of sovereignty and the setting-up of a common central bank. In view of the absence of institution building in Asian region, monetary unification and optimum currency area seems far-fetched.

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