A possibility of creasing a common currency union in East Asia

Kentaro Kawasaki

Summary

The experience of the Asian currency crisis reminds us of the fact that the *de facto* dollar peg was inadequate for East Asian countries that have close economic relationships with not only the United States but also Japan, European countries, and intra-regional countries. Obviously, heavy reliance on the single currency peg exchange rate system caused the Asian crisis. East Asian countries should choose a proper exchange rate system to prevent a possible crisis.

However, there still exists a variety of exchange rate regimes in East Asia. The variety of exchange rate systems in East Asia means that there still exists a possibility of a coordination failure in choosing exchange rate regimes. One measure to solve a coordination failure for this area is to adopt a "common" exchange rate policy. The coordination of their exchange rate policies and the related monetary policies will contribute to stabilizing intra-regional exchange rates among their currencies. The establishment of stable exchange rate linkage and the enhancement of a credibility of monetary policy in East Asia also will further promote regional economic integrations.

On the other hand, countries trying to adopt a common currency exchange rate policy should

form an “Optimum Currency Area (OCA)”. If countries try to adopt a common exchange rate policy, they should satisfy the conditions for “one-size fits all” monetary policy in the end. It means that they need to give up the independence of their monetary policy. In other words, the precondition for regional common exchange rate policy is that there should exist another channel among countries other than managing their exchange rates to adjust to the asymmetric response to the economic shocks. Therefore, the main purpose of these chapters is to investigate whether East Asian countries meet the OCA criteria or not.

Chapter 2 reviews the theory of Optimum Currency Area and related empirical. Since Mundell (1961) has developed the original concept of a common currency area, many researchers discussed its criteria and have developed methodologies for the empirical analysis to investigate whether a region is OCA or not. An important aspect is which criterion for the common currency area should be met by for possible member countries. One of the conditions for feasibility of OCA is synchronization of business cycles. The investigation for this condition is implemented by employing the Structural Vector Auto-Regressive (S-VAR) approach (Bayoumi and Eichengreen (1993)). However, assumed conditions in their approach may be too strict or restrictive if the condition for OCA should be defined as long-term equilibrium. Therefore, broader conditions, including the dynamics of convergence process toward equilibrium in the theoretical model, should be needed. Here, the feasibility featured by the "Generalized Purchasing Power Parity (G-PPP)" approach is introduced and adopted into the East Asian countries.

Chapter 3 attempts to modify the G-PPP model which has been originally developed by Enders and Hurn (1994). While their original model was named after a plausible assumption for OCA criterion, formulations in their model were generated from the countries' income process. To ensure the theory of Purchasing Power Parity as a condition for a common currency area, their model should be modified to include the tradable and nontradable goods. Again, an attempt here is to modify the Enders-Hurn model while leaving the flavor of the original PPP, thus bridging a gap between Cassel's (1921, 1922) PPP and Enders and Hurn's (1994) G-PPP.

Chapter 4 discusses a possible common regional policy arrangement in East Asia, which are related to sequencing toward regional monetary integration. It is important to study which type of exchange rate policy is suitable for each country and should be adopted in the region as well. A rationale for this arrangement is that East Asian monetary authorities' objective is to stabilize trade balances, at least, in transitions. A possible common currency arrangement in East Asia may draw a sharp contrast to the ECU. An important aspect is that one of the common currency arrangements for

East Asia may be composed of currencies of major trading partner countries.

The second part of the chapters (Chapter 5, 6, and 7) employs the modified Generalized Purchasing Power Parity (G-PPP) model to investigate the possibility of creating a common currency basket in East Asia according to the theory of Optimum Currency Area.

Chapter 5 investigates which East Asian countries might be able to form a common currency area. The empirical analysis here also tries to examine the applicability of a common currency peg and a single currency peg for a possible common currency area in East Asia, where a common currency basket is composed of the three major currencies: the US dollar, the Japanese yen and the German mark. Empirical results showed that the ASEAN5 countries, China, and Korea would be candidates for a common currency area with a common currency basket as an anchor currency. Also, we have concluded that a common currency basket is more applicable as an anchor currency than the US dollar in forming a common currency area in the region.

Chapter 6 also investigates the possibility of introducing a common currency basket in East Asia. As evidenced by the de facto dollar peg system, East Asian countries still may not have an identical long-term stationary relationship with a trade-weighted common currency basket or an alternative rational weighted basket as an anchor currency. Therefore, our investigation should focus on estimating basket weights on the three major currencies which can stabilize the real exchange rates among inside currencies in the long run. Empirical results showed that, using the trade-weighted common currency basket of the three major currencies, the combination of ASEAN5 + China could define the common currency basket area with the three major currencies. However, we also find that, from the estimation for the endogenous weights on the three major currencies in the common currency basket, the weight of the US dollar in the common currency basket are lager than that of the weights based on the trade volumes of seven East Asian countries with the United States. It means that the optimal weight of the US dollar was less than 80% in the common currency basket which make the bilateral exchange rates among East Asian countries stable in the long run.

Chapter 7 discusses whether East Asian countries, especially, "ASEAN plus three countries" constitute an optimum currency area or not. One latest question is whether the Japanese yen can be regarded as an "insider" currency along with other East Asian currencies. Alternatively, the Japanese yen may still be an "outsider" which is used as a target currency of foreign exchange rate policy for other East Asian countries. Using the DOLS to estimate the cointegrating vector, the Japanese yen should be included as an endogenous variable in the long-term relationship as well as other East Asian currencies while the Japanese yen worked exogenously as well as the Euro and the US dollar in the system composed of the East Asian currencies. It implies that the yen is increasing the possibilities of success in adopting the common currency basket arrangement into the ASEAN plus three countries that include Japan.

All findings from the empirical results support that it is possible for the East Asian Countries to form a common currency union. Note that, in transitions toward an equilibrium, namely single currency union, countries need to make policy coordination if adjustment process by those mobility is expected to be very slow and the nominal rigidities exist in the short run. Note that these total costs should not exceed the total benefit achieved by the monetary integration in the long run.

Recently, it has become much more recognized in East Asia that monetary and financial cooperation is necessary for preventing and managing future currency crises. Furthermore, the monetary authorities of the ASEAN plus three (Japan, China, and Korea) countries have started discussing the "Regional Currency Unit" to stabilize their exchange rates and encouraging study of a possible common currency integration in East Asia.

A rationale for introducing the rigid regional exchange rate system into East Asia is to prevent a possible crisis. It is also true a stable exchange rate system and a credible monetary policy will promote the regional transactions not only in financial market but also in real-goods market, thus, enhancing the regional economy. However, there are three key issues that need to be addressed in efforts toward a possible integration in the region. We should consider: 1) the optimal size of region that should adopt common regional monetary arrangements, 2) what kind of exchange rate systems or monetary policy each of the countries should choose in transition, and 3) how the countries should move to the possible monetary integrations in East Asia.

In designing an international financial architecture for this area, an important aspect is that, in our economic theoretical and empirical analysis, we should consider factors that are specific to East Asia; its history, economic systems, and political environments. Findings from these studies would contribute to policy makers and their decisions in the early stage of integration.

References

Bayoumi, T. and B. Eichengreen, 1993, "Shocking aspects of European monetary integration," in Francisco Torres and Francesco Givavazzi eds., *Adjustment and Growth in the European Monetary Union*, Cambridge University Press, 193-229.

Cassel, G., 1921, *The Worlds Money Problems*, New York, E.P, Dutton and Co.

________, 1922, *Money and Foreign Exchange After 1914*, London, Macmillan.

Enders, W. and S. Hurn, 1994, "Theory and tests of generalized purchasing-power parity: Common trends and real exchange rates in the Pacific Rim," *Review of International Economics* 2, 2, 179-190.

Mundell, R. A., 1961, "A theory of optimum currency areas," *American Economic Review*, 51, 657-665.