

Regional Currency Unit and Exchange Rate Coordination in East Asia

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This paper estimates the value of the RCU as a weighted average of East Asian currencies following the method used to calculate the ECU. The weight of component currencies is determined on the basis of each country's economic importance and contribution to regional cooperation such as the nominal GDP, GDP measured at purchasing power parity (PPP), intra-regional trade, and bilateral swap arrangement under the CMI. Two features are noteworthy. One is that the RCU value based on nominal GDP varies the most and the value based on PPP-GDP fluctuates the least. The other feature is that the trends of the RCU look very different according to the choice of the benchmark year. The RCU thus calculated can be used as a divergence indicator to monitor the exchange rate movement of East Asian currencies. This paper explores diverse ways to extend the use of RCU and to foster monetary integration in East Asia as well.

Keywords: Regional Currency Unit, parallel currency, Asian monetary integration

JEL Classification Numbers: E58, F31, F41

1. Introduction

Since the Asian crisis in 1997, East Asian countries have made strong efforts to promote regional monetary and financial cooperation. While it is hard to deny that there have been no achievements, nevertheless, it is true that little progress has been achieved in the monetary and exchange rate arrangements.

In a recent meeting of the ADB held at Hyderabad, India on May 3, 2006, finance ministers from Korea, China, and Japan announced that they would take steps to coordinate their currencies in a way that would ultimately produce a common regional currency similar to the euro. They also added steps to study all related issues, including the creation of a regional currency unit (hereafter RCU) that had often been referred to as the Asian Currency Unit (ACU). Although an

Asian monetary union is a distant goal, the idea of an RCU could be an important step toward realizing a monetary union in Asia.

The introduction of an RCU would help foster monetary and financial integration in Asia, catalyze Asian bond markets, and serve as an Asian exchange rate arrangement similar to the European Exchange Rate System. Given that there has not been much progress in achieving monetary integration in Asia, the RCU would certainly serve as an effective instrument for breaking the current standstill. The introduction of a RCU, however, poses many important technical questions, such as what currencies to include in the basket and what weights to attribute to the component currencies. It also poses policy questions such as how the RCU can be used to enhance monetary integration in Asia.

The objective of this paper is to answer those questions by estimating a RCU value as a weighted average of East Asian currencies and then to suggest some possible strategies for furthering monetary and financial cooperation based on the RCU. Indeed, the use of an RCU will necessitate stronger cooperation between countries in East Asia, which might finally lead to the creation of an Asian Monetary System.

Similar studies have already been conducted by Ogawa and Shimizu (2005, 2006) and Kawai (2006). As in this paper, these studies tried to calculate the RCU values of Asian currencies but, because they limited their interests largely to the calculation itself, it seems that they were insufficiently addressing the strategies and problems linked to the introduction and the use of RCU. This paper intends to clarify these issues in more detail.

The organization of this paper is as follows. Section 2 calculates the value of the RCU after addressing some technical questions such as the determination of weight and currency composition. Section 3 suggests strategies of policy coordination using the RCU to enhance monetary integration in East Asia. A conclusion and summary are provided in Section 4.

2. Calculation of the RCU

2.1. Methodology

There are not yet any agreements concerning the method for calculating the RCU but we follow the method used to calculate the ECU under the EMS. There are several issues to be addressed in designing the RCU. One of the most important issues is to determine the component currencies to be included in the RCU. For practical purposes, we first calculate the value of the RCU including only the three Northeast Asian countries (Korea, Japan and China). Clearly these countries are expected to play leading roles in introducing the RCU and promoting monetary integration in Asia. Being both symbol and instrument of the monetary integration process of Asia, however, the RCU basket is generally called on to contain all the Asian currencies of the future member countries of a monetary union in Asia. A natural selection of the member countries would therefore be ASEAN+3. In the study, however, we include only advanced ASEAN5 (Indonesia, Malaysia, the

Philippines, Singapore, Thailand) + 3 (China, Japan, Korea). The reason for this is that ASEAN countries are so diverse in their economic development and degree of democracy that including all ASEAN currencies would make the use of the RCU extremely difficult and related policy coordination extremely complicated. Moreover, the other 5 ASEAN countries (Brunei, Cambodia, Laos, Myanmar, Vietnam) do not contribute to the bilateral swap arrangements of the CMI. However, changing this study to encompass all of ASEAN+3 affects the outcome little¹⁾.

The second issue to consider is to choose the weight of each component currency in the RCU. Generally speaking, the weight of the basket is supposed to represent the weight of each country's economic importance and contribution to economic cooperation *in the region*. Several factors are used for the choice of the weight in this study:

- relative weight of each country's nominal GDP
- relative weight of each country's GDP measured at purchasing power parity
- relative weight of each country's intra-regional trade
- relative weight of each country's bilateral swap arrangement of the CMI
- a combination of all four.

Finally, it is important to choose the base year. One of the most popular ways is to choose the year when a fundamental equilibrium of both internal and external sectors is achieved. Since the internal equilibrium of each country is very difficult to figure out, we choose a base year in which total international transactions of the member countries are as close to being balanced as possible and their balances with the rest of the world are also as small as possible. For an estimation of the study, the year 2000 is chosen as the benchmark year.

Since the RCU is a basket of currencies of Asian countries and can be used as an indicator to show how Asian currencies are moving collectively against external currencies, the choice of the external currencies in terms of which the RCU value is measured is important. The paper uses the US dollar for exhibition. Inclusion of the euro slightly changes the results but basic implications remain intact.

To estimate the value of the RCU against the US dollar and the value of each currency against the RCU, we first need to determine the weight and the amount of each currency in the RCU. Table 1 shows the weight and the amount of each currency in the RCU for three Northeast Asian countries.

In terms of nominal GDP in the year 2000, Japan is granted the highest weight of 74.87 percent and is followed by China at 17.05 percent and Korea at 8.08 percent. Since 1 RCU is set to be \$1.00 at the benchmark year of 2000, this means that 1 RCU is composed of an amount of Japanese yen equal to \$0.7487, Chinese

¹⁾ The alternative is to consider ASEAN as one nation in the calculation of the RCU. This implies however that ASEAN will create its own basket or single currency, which is not very realistic.

Table 1 Weights and amounts of three Northeast Asian currencies in the RCU, 2000

	Currency Weight (%)				US dollar rates	Currency Amount (unit)			
	PPP-GDP	Nom-GDP	Intra-trade	CMI-swap		PPP-GDP	Nom-GDP	Intra-trade	CMI-swap
Korea	8.09 (7.39)	8.08 (10.77)	22.41 (20.75)	(26.67)	1130.6 (1024.13)	91.45 (75.69)	91.31 (110.30)	253.38 (237.29)	(273.10)
Japan	37.30 (29.97)	74.87 (65.17)	48.61 (40.20)	(47.62)	107.8 (110.25)	40.21 (33.04)	80.71 (71.85)	52.40 (43.49)	(52.50)
China	54.61 (62.64)	17.05 (24.06)	28.98 (39.05)	(25.71)	8.3 (8.1922)	4.53 (5.13)	1.42 (1.97)	2.41 (3.24)	(2.11)

Note: () is for 2005 except intra-trade for 2004.

yuan equal to \$0.1705, Korean won equal to \$0.0808, and other currencies constituting the remainder. In 2000, the exchange rate of the Japanese yen against the US dollar was \$1 = 107.8 yen and 80.71 (= 107.8 × 0.7487) units of the Japanese currency are included in 1 RCU. Likewise, 1.42 (= 8.3 × 0.1705) units of the Chinese currency and 91.31 (= 1130.6 × 0.0808) units of the Korean currency are included in 1 RCU. In the year 2006, the weight of Japan decreases but is still the highest, and those of China and Korea increase slightly. If the amount of each currency in the RCU is fixed as in the case of the ECU, the share of the currencies depreciating against other currencies will decline. For example, if the Japanese yen depreciates and the exchange rate against the US dollar rises to \$1 = 116 yen from \$1 = 107.8 yen, its weight decreases to 69.58 percent (= 80.71 unit/116) from 74.87.

In terms of GDP measured by PPP, China is the highest with 54.61 percent and Japan is next with 37.30 percent, followed by Korea at 8.09 percent in year 2000. For year 2005, China's weight increases to 62.64 percent while Japan's weight decreases to 29.97 percent. The corresponding amounts of each currency in the RCU can be calculated in a similar way and are shown in the column of PPP-GDP on the right part of Table 1.

In terms of intra-trade share, Japan was the highest, China second, and Korea third in 2000. In 2005, the shares of China and Japan became similar to each other. Compared to the nominal GDP and the PPP-GDP measures, the weights based on the intra-trade shares among the countries were relatively balanced. In terms of CMI bilateral swap arrangements, Japan's share is the highest, Korea next, and China third. Again, the weights of each country are less variant than the cases using nominal GDP and PPP-GDP. The corresponding amounts of each currency in the RCU based on intra-trade shares and CMI contributions appear in the last two columns of Table 1.

Using the amount of each currency in Table 1, the value of the RCU in terms of the US dollar is defined as follows:

$$RCU^{\$} = \sum_j \alpha_j S_j^{\$}, \quad (1)$$

Table 2 Value of the RCU in US dollar and National currencies, 2006

	PPP-GDP	Nom-GDP	Intra-trade	CMI-swap
\$/RCU rate	1.010	0.9671	1.0176	1.0196
RCU/\$ rate	0.9901	1.0340	0.9827	0.9808
won/RCU rate	964.35	923.42	971.61	956.37
Yen/RCU rate	117.46	112.48	118.35	116.49
Yuan/RCU rate	8.0531	7.7113	8.1138	7.9865

Note: CMI-swap is scale-adjusted to be unity at 2000.

where α_j is the amount of currency j , S_j^s is the value of currency j in terms of the US dollar. Of course, the value of the RCU calculated using (1) is \$1.00 at the base year of 2000. However, the value of the RCU will change with the exchange rate fluctuation against the US dollar. For example, substituting the exchange rates of Asian currencies against the US dollar of Table 2 into (1) yields 1 RCU = \$1.01 (or \$1 = 0.99 RCU) in the year 2006 when the PPP-GDP weights are used:

$$\begin{aligned} RCU^s &= 91.45 \times \$1/954.8 + 40.21 \times \$1/116.3 + 4.53 \times \$1/7.9734 \\ &= \$1.01 \end{aligned}$$

Similarly, the official value of the RCU in terms of each national currency i can be defined as a weighted sum of the official exchange rates of currencies so that

$$RCU^i = \sum_j \alpha_j S_j^i, \quad (2)$$

where S_j^i is the value of currency j in terms of currency i . In other words, the value of the RCU in terms of any currency in its basket is equal to the sum of amount of that currency and the amounts of the other components, converted into that currency. Table 2 shows that the value of the RCU in terms of Korean won in 2006 using the PPP-GDP measure is 1 RCU = 964.35 won²⁾:

$$\begin{aligned} RCU^i &= 91.45 \times 954.8/954.8 + 40.21 \times 954.8/116.3 + 4.53 \times 954.8/7.9734 \\ &= 964.35 \text{ won.} \end{aligned}$$

2.2. Result for +3 Countries

We first present the result for the three Northeast Asian countries, Korea, Japan and China. Figure 1 shows the trend of RCU value in terms of the US dollar during

²⁾ Alternatively we can use the triangular arbitrage condition such that $RCU^i = RCU^s \times S_s^i$, where S_s^i is the value of the US dollar in terms of currency i , i.e., the exchange rate of currency i against the US dollar. Thus, for the value of the RCU in Korean won, we have: $RCU^i = RCU^s \times S_s^i = \$1.01 \times 954.3 \text{ won} = 964.35 \text{ won}$.

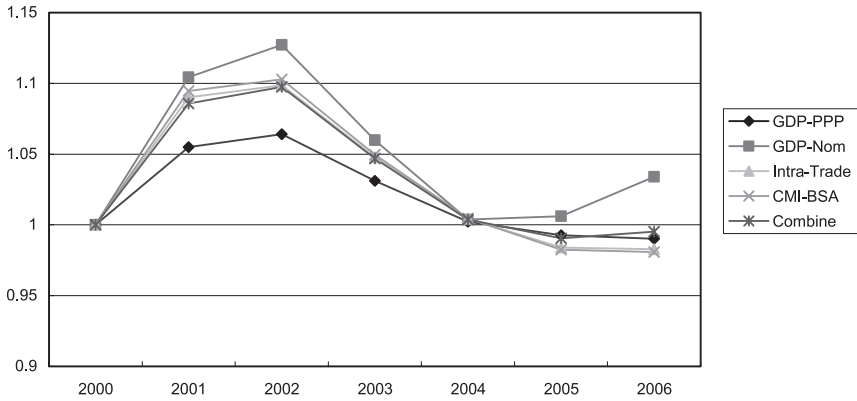


Figure 1 Trend of RCU/\$ rate for +3 countries.

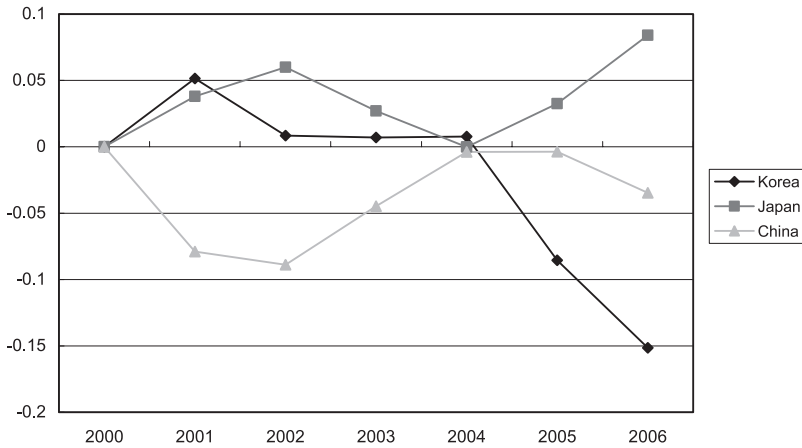


Figure 2 Changes in the RCU rate of +3 currencies: combination.

the period 2000–2006 using five different measures of weights. Two features are noteworthy. One is that the RCU value based on nominal GDP fluctuated the most and that based on PPP-GDP fluctuated the least. Since China takes the largest share in the PPP-GDP measure and the yuan was nearly fixed against the US dollar during this period, the corresponding RCU value should be stable compared to other cases. In contrast, Japan’s share is much larger than China’s in the nominal GDP measure, and the yen has been volatile against the US dollar. Hence, the corresponding RCU value should fluctuate more compared to others.

The other feature is that the trends of the RCU look very different according to the choice of the benchmark year. If the year 2000 is selected as the base year, the RCU value in 2004 returns to a value very close to the starting point after losing its

value in 2001 and 2002. However, if we choose 2001 as the base year, the RCU steadily gains in value by more than 10 percent up to 2006.

Figure 2 shows the RCU rate in national currencies using the average value of four different weights. The figure shows that even among three currencies, there have been huge deviations. In 2002, there was a 15 percent deviation between the Chinese yuan and the Japanese yen, and in 2006, around a 25 percent deviation between the Korean won and the Japanese yen³). Although there are slight differences, all these figures show a very similar feature in that there are large deviations among three Northeast Asian currencies.

2.3. Result for ASEAN+3 Countries

We now repeat the same calculation for ASEAN5+3 countries. Table 3 summarizes the weight and the amount of each currency in the RCU for eight Asian countries.

Although five new currencies are added to the basket, the shares of the three Northeast Asian countries remain dominant. Figure 3 shows the value of the RCU in US dollars from year 2000 to year 2006 using five different measures of weights. Again, the RCU value based on nominal GDP fluctuated the most and that based on PPP-GDP the least.

Table 3 Weights and amounts of Asian currencies in the RCU, 2000

	Currency Weight (percent)				US dollar rates	Currency Amount (unit)			
	PPP-GDP	Nom-GDP	Intra-trade	CMI-swap		PPP-GDP	Nom-GDP	Intra-trade	CMI-swap
Korea	6.83 (6.29)	7.45 (9.76)	13.64 (13.87)	(17.28)	1130.6 (1024.13)	77.26 (64.44)	84.26 (99.95)	154.21 (158.62)	(177.01)
Japan	31.51 (25.51)	69.09 (59.05)	29.59 (26.87)	(30.86)	107.8 (110.25)	33.97 (28.13)	74.48 (65.11)	31.89 (29.07)	(34.03)
China	46.14 (53.33)	15.73 (21.80)	17.64 (26.11)	(16.67)	8.3 (8.1922)	3.83 (4.37)	1.31 (1.79)	1.46 (2.17)	(1.37)
Singapore	0.90 (0.86)	1.33 (1.36)	14.01 (11.13)	(4.94)	1.7 (1.6646)	0.02 (0.01)	0.02 (0.02)	0.24 (0.19)	(0.08)
Thailand	3.69 (3.55)	1.79 (2.16)	6.36 (6.43)	(7.41)	40.1 (40.277)	1.48 (1.43)	0.72 (0.87)	2.55 (2.59)	(2.98)
Philippines	2.92 (2.94)	1.11 (1.10)	3.28 (2.86)	(6.79)	44.2 (55.0855)	1.29 (1.62)	0.49 (0.61)	1.45 (1.60)	(3.74)
Malaysia	1.99 (1.62)	1.31 (1.48)	10.04 (8.28)	(4.94)	3.8 (3.7868)	0.08 (.06)	0.05 (0.06)	0.38 (0.31)	(0.19)
Indonesia	6.02 (5.88)	2.19 (3.29)	5.45 (4.45)	(11.11)	8421.8 (9707.0)	506.59 (570.55)	184.14 (319.25)	459.08 (397.80)	(1078.56)

Note: () is for 2005 except intra-trade for 2004.

³) For the RCU rate of each national currency using four other different measures of weights, see Moon et al. (2006).

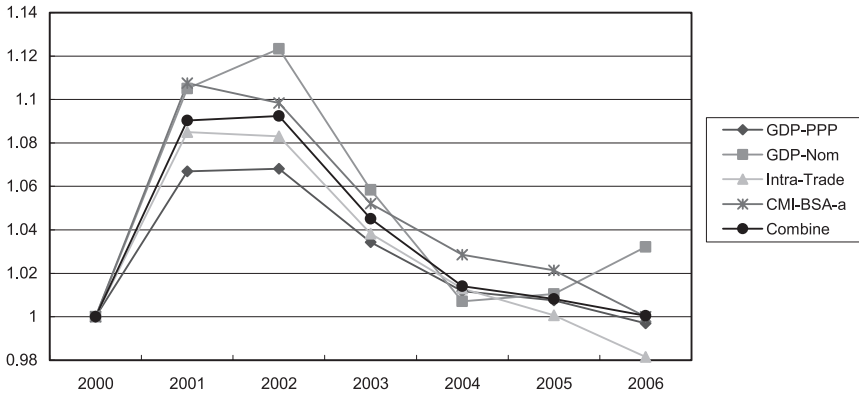


Figure 3 Trend of RCU/\$ rate for ASEAN5+3 countries.

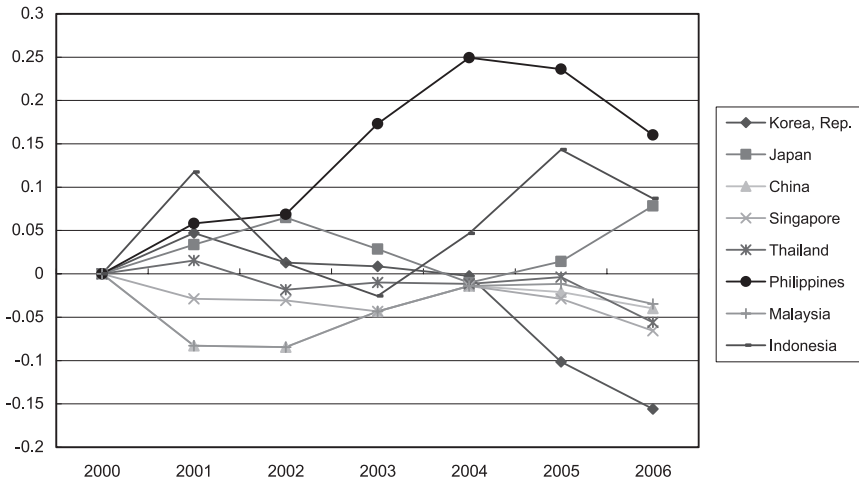


Figure 4 Changes in the RCU rate of ASEAN+3 currencies: combination.

Figure 4 shows the value of the RCU in national currencies for ASEAN+3 countries⁴⁾. From the base year 2000 to year 2006, the Korean won appreciated the most, by more than 15 percent. On the other hand, the Philippine peso depreciated by 15 percent and the Indonesian rupee by almost 10 percent during this period. Another feature is that the deviations seem to widen: the Asian currencies currently have over 30 percent of the deviations among themselves. Thus, if Asian countries are to adopt a target zone system such as the EMS, it is obvious that

⁴⁾ For the RCU rate of Asian currencies using other measures of weights, see Moon et al. (2006).

Asian countries should adopt a wide band basket system, possibly ± 15 percent around the central rate (Moon, Rhee, and Yoon 2001). Moreover, if the RCU as calculated above is used as a divergence indicator, it implies that a country like the Philippines should intervene in the foreign exchange market to stabilize its currency vis-à-vis the RCU. Thus the creation of the RCU can be a good way to coordinate policies and assure exchange stability between countries.

3. Strategies for Policy Coordination Using the RCU

The creation of the RCU can play a pivotal role for monetary stability in Asia and accelerate the creation a monetary union in Asia. In order for the RCU to assume such a role, the use of the RCU should be widened and strengthened.

3.1. Technical Issues

Some of technical issues under review before launching the RCU include the weights attributed to the currencies in the basket, the base year for the index, what currencies to be included in the basket, periodical revision of the weights, etc. We elaborate on one of them, weight of the composite currencies, which is the most contentious.

As mentioned above, there are many ways to calculate the weights of the composite currencies of the RCU. A basic principle is that the weights should be constructed so that the RCU can well reflect the values of Asian currencies in international transactions and that a single currency is not too dominant in the basket. A popular idea is to define the weights according to the shares of GDP. However, there are two kinds of GDP, one based on the PPP exchange rate and one based on the market exchange rate. The weights vary greatly depending on what GDP we use. When the PPP based GDP is used, China is well ahead of all other countries, while Japan is well ahead of China when market based GDP is used. This variance suggests that attribution of weights using GDP cannot appropriately reflect the values of Asian currencies.

Another problem of using GDP is that either China or Japan may be too dominant in the composition of the basket and the problem of asymmetry may arise. As we can see from the experience of the ECU, the larger the share of the currency, the lower is its depreciation (appreciation) against the RCU. Insofar as the exchange rate fluctuation is concerned, a country with a higher share in the basket will have smaller exchange rate fluctuations of its currency in terms of the RCU, while countries with lower shares will have to face larger fluctuations of their exchange rates in terms of the RCU. If there is an intervention band such as a target zone, there arises the asymmetric case where the country with the smaller share will have to intervene, while the country with a higher share will not need to do so.

Our proposal is that the weight should represent the country's importance in international transactions and its contribution to economic cooperation *in the region*. Using the volume of international transactions in trade and finance can

well reflect the value of a currency not only in international transactions but also in economic power as well. Using the contribution can also encourage a country's participation in regional economic cooperation. Attribution of weights considering intraregional transactions and regional economic contribution could present a solution to the asymmetry problem because a currency's share does not become too dominant. To ensure this, we further suggest that the largest share attributed to a currency should not be over one third.

3.2. Usage of RCU

In order for the RCU to be widely used, the RCU should be used to monitor exchange market development at the official level. The RCU is an appropriate tool in identifying misalignment and excess volatility of an Asian currency vis-à-vis other regional currencies⁵⁾. Also the RCU can be used as an indicator to monitor how Asian currencies are moving collectively vis-à-vis key external currencies such as the US dollar and the euro. If the RCU calculated above in section II is used as a divergence indicator, it implies that countries like Korea and Philippines should intervene in the foreign exchange market to stabilize its currency against the RCU. Thus the creation of the RCU is a good way to coordinate policies and assure exchange rate stability among countries in East Asia. However, the use of the RCU as an instrument for policy coordination necessitates stronger cooperation because of the asymmetry that exists between member countries. For example, the smaller the currency weight of a country is, the larger the exchange rate fluctuation of this country against the RCU will be and therefore the higher the intervention burden will be (See Moon et al. (2006)). It means that a higher level of cooperation is essential to extend the use of the RCU.

At the same time, the RCU can be used in private capital markets as a denomination of market transactions such as bond issuance. Issuing bonds on the basis of the RCU is a good idea to make use of increasing foreign reserves in East Asian countries. The RCU can become a supplementing framework for the development of regional financial markets in East Asia⁶⁾. However, the experience of the EU suggests that the use of a private ECU could be activated only if the use of an official ECU was guaranteed in the official sector⁷⁾. Thus an idea to develop financial markets linked to the RCU at the official level such as ABMI is important in stimulating private sector interest in the use of the RCU. The RCU can also serve as a useful instrument for the introduction of a regional settlement system to link Asian financial markets as well as a swap arrangement and surveillance mechanisms to improve the efficiency of the CMI.

⁵⁾ If Asian countries are interested more in stabilizing their exchange rates vis-à-vis major trading partners, the effective exchange rate could be also an option. But it has nothing to do with setting up regional monetary arrangement.

⁶⁾ Moon (2007) suggests strategies for creating regional bond markets in East Asia.

⁷⁾ For more detailed discussion on this, see Moon et al. (2006).

3.3. Asian Monetary System

As pointed out, the creation of a regional exchange rate system is essential for the use of the RCU because the RCU could be extensively used only when there is an exchange rate arrangement among Asian countries⁸⁾. That was exactly the case for the EMS. At the official level of the EMS framework, the ECU was used in the following ways:

- as a unit of account for denominating the value of EMS countries
- as a reference unit for the operation of the divergence indicator
- as a denominator for operations in the intervention and credit mechanisms
- as a reserve asset (settlement instruments between central banks of the member states)

Prior to the creation of the EMS, ideas for a new European parallel currency to contribute to monetary exchange stability were discussed extensively (Vaubel 1978). As indicated by Steinherr (1989, p. 60), “EMS and ECU were not seen as two juxtaposed and independent innovations but as the two necessary and strongly mutually reinforcing pillars of the new regional monetary system to fulfill two expectations: creation of a European zone of monetary stability and greater independence from outside disturbances.” Indeed, in the case of the EMS, the development of the ECU has benefited from the EMS and official recognition by member countries of the ECU as an integral part of the EMS, though the reverse is certainly not true. Thus, the development of the RCU as a means of payment, a unit of account, and a store of value will depend on the development of an exchange rate arrangement in Asia.

The use of the RCU at the official level also leads to the private use of the RCU. In particular, it can help to promote a RCU denominated bond market in Asia, which is indispensable for eliminating the underlying causes of regional financial instability and coping with the global imbalance that originates from the continuing current account deficits of the US and surpluses of the East Asian countries.

Thus, it is essential for East Asian countries to establish their own monetary system, similarly to EMS. In fact, given the increasing importance of intra-region exchange rate stability reflecting closer economic and trade relations among East Asian countries, there is a higher need for AMS. Then, the use of RCU will be the only feasible option for exchange rate coordination for East Asian countries because it can alleviate the fear of Asian countries about Japanese dominance.

Also, an Asian Exchange Stabilization Fund (AESF) should be established once the creation of Asian exchange rate arrangement is taken into serious consideration. A similar idea was already proposed under the name of the Asian Monetary Fund (AMF) in 1997 by the Japanese government to support crisis-hit Asian

⁸⁾ See Moon et al. (2000), Choi (2007) for the need of Asian Exchange Rate Arrangement.

countries. The main function of the AMF was to provide emergency financial support and thereby prevent a possible financial crisis in Asia. Faced with strong opposition from the United States, this proposal did not survive, but the idea remained pertinent and ended up with the formation of the CMI (Moon, Rhee, and Yoon 2005). Though initially insufficient and bilateral, the swap arrangement has continued to be strengthened, and recently it was agreed upon to develop the swap into a multilateral arrangement. The CMI is however incomplete because it does not yet address the question of institutionalization of the exchange rate system in Asia. The objective of the AESF is more comprehensive in that it includes exchange rate stability in addition to liquidity support. In fact, the case of the EMS suggests that three pillars be combined into one institution: ECU, provision of liquidity, and ERM. Thus, in Asia, once the RCU is created and once the provision of emergency liquidity can be strengthened through the CMI, then the next natural step will be to set up an appropriate exchange rate system. This could be carried out with the establishment of the AESF.

In addition, to ensure the smooth progress of the monetary integration process, the asymmetry problems should be resolved. Indeed, the European experience shows that the development of the EMS since the fall of the BW system was a history of coping with asymmetry. There are various ways to strengthen symmetry including an upper limit to the weight of strong currencies, a narrower band for countries with large shares adjusted to be $2.25\% \times (1 - \text{basket weight})$, intervention of both countries with strong and weak currencies, unlimited borrowing of the strong currencies, borrowing in the strong currency and paying in RCU, periodical revision of the weights, etc. And as we suggested above, the largest share attributed to a currency should not be over 33.3%.

4. Summary and Conclusion

This paper estimated the value of the RCU as a weighted average of East Asian currencies according to the method used to calculate the ECU under the EMS and suggested possible strategies of policy coordination using the RCU.

From the estimation of the exchange rate of the RCU against the US dollar, we can find two features. One is that the RCU value based on nominal GDP fluctuated the most and that based on PPP-GDP fluctuated the least. The other feature is that the trends of the RCU look very different according to the choice of the benchmark year. If the year of 2000 is selected as the base year, the RCU value in 2005 returns to a value very close to the starting point after losing its value in 2001 and 2002. However, if we choose the year of 2000 as the base year, the RCU steadily gains in value by about 10 percent to the year of 2005. From the estimation of exchange rates of individual currencies against the RCU, we can see that from 2000 to 2006, the Korean won appreciated the most by roughly 15 percent. On the other hand, the Philippine peso depreciated by 15 percent during the same period. The deviations among Asian currencies seem to widen.

Once several problems involved in defining the RCU are solved, the RCU can

then be used as a divergence indicator to monitor the exchange rates of Asian currencies between themselves and against the US dollar or euro. The creation of the RCU is a good way to coordinate policies and assure exchange stability between Asian countries. The RCU can be developed into a parallel currency as well. Drawing a parallel with the ECU, this paper suggested the establishment of Asian exchange rate system like the European exchange rate system, and the Asian Exchange Stabilization Fund to facilitate the creation of a monetary union in Asia.

Finally, we suggest the need for a long term vision for a monetary union in East Asia in the form of a common declaration. If there is a long term vision, it will stimulate economic cooperation among Asian countries. Since it is a declaration, it would not necessarily cause a political burden and would not incur any costs from the participating countries. But the declaration can become a landmark and provide guidelines as the East Asian integration process advances. Moreover, many ideas for regional cooperation based on the RCU will gain a stable basis through the declaration and the chance for success in the market will be enhanced.

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