"The Influence of the RMB on Exchange Rate Policy in Other Economies"

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October 19, 2007

Washington DC

Prepared for Peterson Institute for International Economics Conference

China's Exchange Rate Policy

1. Introduction

The East Asian countries, most notably China, are often collectively described as a region that manages, if not manipulates, the exchange rate toward undervaluation, achieves large current account surpluses, and accumulates foreign reserves. Indeed the East Asian region, as well as oil producing nations, is on the surplus side in the accounting of global imbalances. However, unlike the first impression, the exchange rate regimes of East Asian countries are diverse and uncoordinated. A lack of coordination prevents, rather than help, global exchange rate adjustment that is essential to resolve global imbalances.[1] Countries that trade with China and compete with China in exports to the third market are keen not to allow too much appreciation of own currencies vis-à-vis the Chinese RMB. When China is allowing its currency to appreciate only very gradually, the neighboring countries will not allow sharp appreciation of their own currencies.

[1] See Blanchard, Giavazzi, and Sa (2005) and Obstfeld and Rogoff (2005) for standard references for global imbalances and the necessity of exchange rate adjustment.

Currently, countries under the managed exchange rate regime, such as Korea, Singapore, and Thailand, tend to keep the trade-weighted exchange rate stable—rather than the dollar peg. As the weights of China in exports and imports have increased in these countries, the influence of Chinese exchange rate policy on these currencies is considered to have increased. The trend is fairly certain, but the variations are diverse. In the past several years, appreciations of the Korean won and the Thai baht are much more pronounced than very gradual appreciation of the Chinese RMB. However, the fact that Thailand decided, but shortly after rescinded, capital controls in December 2006 was a circumstantial evidence that too much appreciation vis-à-vis RMB as well as the US dollar is not welcome by these countries.

In turn, the Chinese seems to be worried very much about its export competitiveness. In spite of pressure from the United States to allow faster appreciation, China has allowed appreciation by only about ten percent since July 2005. (It is 7.5 RMB/USD on October 5, 2007, as it was 8.28 RMB/USD on July 20, 2005.) Although Chinese officials often cites low profit margins of exports, especially textiles and agricultural goods, the appreciation would be easier to swallow if China is sure that other Asian currencies will follow RMB in the event of faster appreciation.

In sum, China most likely is more willing to accept RMB appreciation if neighboring countries, in addition Korea and Thailand, allow faster appreciation. East Asian countries definitely are more willing to allow appreciation if the speed of RMB appreciation accelerates. This is a coordination failure.

Therefore, I will argue that if the East Asian countries coordinate in their exchange rate regimes, the pace of appreciation vis-à-vis the US dollar, when necessary to resolve global imbalances, will accelerate. One of the possible mechanisms of such coordination is to adopt an Asian Currency Unit (ACU), and each country aims at a stable relationship with the ACU.

The rest of this paper is organized as follows. Section 2 reviews the lessons of the Asian currency crisis with regard to the exchange rate regimes. Section 3 explains several basket currency proposals. Section 4 reviews the concept of coordination failures. Section 5 presents some empirical observations. Section 6 discusses political economy of the exchange rates. Section 7 discusses East Asia's role in resolving global imbalances. Section 8 concludes.

2. Exchange Rate Regimes in East Asia

One of the important lessons that East Asian countries have learned from the Asian currency crisis of 1997-98 was that the exchange rate regime matters. There are two parts to this lesson. First, the well-known part of this lesson is that the de facto fixed exchange rate regime tends to invite double mismatch, which is banks' balance sheets with long-term local currency assets and short-term foreign currency liabilities, due to under appreciation of currency risk by lenders and borrowers. Second, less well-known part of this lesson is that the exchange rate regimes adopted by neighbor countries do influence how to choose the exchange rate regime by a country. This aspect has been called the coordination failure of the exchange rate regimes in the closely linked

region.[2] Thailand was choosing a de facto dollar peg because Malaysia, China, Indonesia and other economically important neighbors were adopting a de facto dollar peg, because Thai exporters had to be competing against neighbors' exporters.

Due to the currency crisis of 1997-98, most Asian countries shifted their exchange rate regimes to managed float systems with varying degree of foreign exchange interventions. Notable exceptions have been the China, Hong Kong, and Malaysia. China had held the RMB tightly fixed to the US dollar since 1994, through the turbulent period of the Asian currency crisis, until July 2005. On July 21, the People's Bank of China (PBOC) made a change to its exchange rate regime, an immediate appreciation by 2 percent, and moving to a more flexible regime. Later, it was proven that PBOC allowed the RMB to appreciate, very gradually, by 2 to 3 percent a year. Hong Kong has maintained until now the fixed exchange rate to the US dollar. Malaysia, first floated its currency with the Philippines and Indonesia, right after Thai baht depreciation, but later fixed the exchange rate to the US dollar (September 1998). It quickly followed China in appreciation and flexibility on July 21, 2005. In that sense, one sees that China's exchange rate policy has clear influence on Malaysia's exchange rate policy.

At present, there are four different regimes in East Asia. First, Japan has adopted free float. Japanese monetary authorities have not intervened since March 17, 2004. Second, Korea, Singapore, Thailand, Indonesia, and the Philippines have adopted managed floating regimes, with varying degrees of basket currency features. Third, there are the

[2] The coordination failure was first pointed out by Ito, Ogawa and Sasaki (1998).

dollar pegger (Hong Kong) and narrow crawling pegs—China and Malaysia. Fourth, others with dollarization (Viet Nam, Cambodia, Lao), currency board to Singaporean dollar (Brunei), and multiple exchange rates with heavy controls (Myanmar).

The bad thing about these diverse exchange rate regimes is its vulnerability to major global exchange rate shocks. Suppose that the US Dollar depreciated against the Japanese yen by 10 percent overnight. Since reactions of currencies in the region would be very different, currencies of some countries, such as China, would experience wind-fall gains in export competitiveness by moving more or less with the US dollar, while others may suffer an appreciation in terms of real effective exchange rate as neighbors (China) refuses to appreciate vis-à-vis USD.

What would be an optimal collective arrangement of exchange rate regimes in East Asia? How much weight would China have in such an arrangement? The exchange rate regime should allow enough flexibility—so that it should adjust to external shocks and changes in fundamentals—but should keep "volatility" reasonably small. But an important thing is that volatility of the exchange rate should be measured in terms of real effective exchange rate (REER).

As the intra-regional trade ratios have increased to the level that is comparable to EU, to keep REER stable means to keep bilateral exchange rates in the region relatively stable while they jointly float vis-à-vis an outside currencies. A joint float is a concept that Europe pursued ever since the "snake" system of 1979—later resulted in a single currency, Euro.

But, bilateral exchange rates in the region cannot be stabilized but float against the rest of the world, unless the countries agree to keep the exchange rate regime similar to each other. One way to achieve such a system is to adopt a basket currency system, that is, a country pursues a peg (with a narrow band) to a common basket that comprises of "outside" currencies with weights roughly reflecting an region's average of trade weights.

3. Basket Currency proposals

Proposals for creating a basket currency unit in Asia have been put forward by several institutions and individuals. One of the early official documents was the Japan-French discussion paper submitted to the ASEM (Asia Europe Meeting) in January 2001. In this document, a virtue of managed exchange rate with reference to a basket currency value is explained. Here, countries that were applied were East Asian countries excluding Japan.

Later, basket currency proposal in the region shifted to those including Japanese Yen inside the basket. The Asian Currency Unit (ACU) proposal, first put forward by Asian Development Bank (ADB) in late 2005, and taken over by ASEAN+3 (10 ASEAN countries, Japan, China, and Korea) Finance Ministers' process in the ADB annual meeting in May 2006, explicitly included the Japanese Yen in the basket.

There are two different kinds of baskets, one excluding the yen, while the other including the yen in the basket.

(1) YES basket: Yen-Euro-$

The YES basket consists of Yen, Euro, and the USD ($). In fact, the ASEM document of 2001 promoted this idea: “Basket currency regimes including the dollar, the yen and the euro would better suit the geographical structure of the balance of payments and would foster stability.”

Using this basket implicitly assumes that the Japanese Yen is an outside currency of the region that would pursue a basket currency. The basket is formed by the three major global currencies, Dollar, Euro, and Yen. For example, suppose that one YES unit is equivalent to 100 Japanese Yen, 1 US dollar, and 1 Euro. If the exchange rate is USD 1= Euro 1 = Yen 100, then YES 1, has a value of USD 3 = Euro 3 = Yen 300.

Suppose that the Yen/Dollar and Dollar/Euro exchange rates become 120 yen/USD 1, and 1.4 USD= 1 Euro. Then YES 1 has a value of 388 yen, USD 3.23, or Euro 2.31. If all Asian currencies aim at keeping a parity to YES, then it would mean that Asia jointly appreciate against the yen, depreciate slightly against the USD, and depreciate most against the Euro.

The YES basket would make sense if Asian countries do export and import from the three advanced regions, US, EU, and Japan, with significant shares, and want to keep the average (NEER) stable.

(2) ASEAN+3 ACU Basket (or AMU):

The ASEAN plus three (ASEAN+3) countries have studied the benefits of having the 13-country weighted basket currency. The weight of each currency can be calculated from the average of the share of trade, and the share of GDP (market exchange rate or PPP exchange rate). The benchmark can be chosen at a year when imbalances in current accounts were relatively small.

Such an indicator has been developed, calculated and updated every week by Professors Ogawa and Shimizu at RIETI-Hitotsubashi University.[3] They chose weights as the arithmetic average of the share of GDP based on the PPP-based exchange rate and the share of total trade (exports and imports) in the basket region. According to this criterion, the largest share is China (37%), followed by Japan (26%), Korea (10%), and Singapore (6%), Malaysia (5%), Thailand (5%), Indonesia (4.9%), and the Philippines (2.8%). Other countries (Brunei, Cambodia, Lao, Myanmar, and Viet Nam) had shares less than 2%.

Currently, they are using this AMU as an indicator whether and how much the exchange rate of a county is deviating from the weighted average of the region's currencies. If all currencies peg to the basket with a narrow band, it would work just as ECU did before the Euro was introduced.

Figure 1 is the value of AMU to the US dollar, the euro, and the dollar-euro basket (with 50% weight each). The AMU—the weighted average of the East Asian

[3] See Ogawa and Shimizu (2005) for the construction of the data base. See the web site for updates: http://www.rieti.go.jp/users/amu/index.html

currencies—has floated against the US dollar. It appreciated by 15% against the US dollar in the last 5 years.

Figure 2 shows the value of each currency to AMU. The deviation from the center in Figure 2 is considered to be a deviation from the average of the currencies in the region. If each currency stays within the few percentage point from the center (0.0), then the East Asian currencies are considered to be floating together, against the US dollar and the Euro, just like the ECU did against the US dollar and Japanese yen. Since the weights of the Chinese RMB and Japanese yen are quite large, their deviation from the center, by definition, is relatively small, although the Japanese yen managed to depreciate by 10 percent between September 2005 and September 2007. On could see that Korean Won (since January 2005) and Thai baht (since January 2007) have stayed above 10% appreciation compared to AMU and are about 20% above AMU now.

4. Coordination Failure

Ogawa and Ito (2002) have pointed out a coordination failure can become a serious problem when countries with significant trade ties try to stabilize real effective exchange rates. For example, the NEER for Thailand put significant weights of its neighbors such as Malaysia. Likewise, the NEER for Malaysia put significant weights on Thailand. If Malaysia decides to adopt a dollar peg (for example like September 1998), then the *de facto* weight of the dollar in the NEER of the Thai baht suddenly increases, and Thailand becomes more likely to adopt a dollar peg as well (or at least increase the weighting of the dollar in its exchange rate). Under the interdependence,

Malaysia and Thailand may have multiple equilibria, a dollar peg equilibrium and a basket equilibrium, depending on reaction functions of the two countries.[4]

Put differently, the choice of the exchange rate regime ends up in an undesirable Nash equilibrium if no communication or coordination is attempted, and may end up in an uncoordinated dollar peg. For example, Thailand would regard Malaysia's exchange rate as a given, and Malaysia would regard the Thai exchange rate as a given. A joint decision would produce a better result than the uncoordinated Nash solution. If coordination is established, a common basket may be employed to improve national interest, such as minimizing fluctuations of NEER.

5. Evidence: a basket currency

In order to measure the influence of the Chinese RMB on other currencies, the Frankel-Wei regression can be attempted with the RMB on the right hand side, and estimate for different time periods. A hypothesis is that the weight of the Chinese RMB has been increasing. However, a problem is encountered immediately. The Chinese RMB had been dollar peg before July 2005, and has been "narrow crawling peg" since then. It would not be able to differentiate easily the US dollar peg and the RMB peg.

One still can estimate the weights of RMB and Japanese Yen in the determination of the Asian currencies, excluding the US dollar as one of the determinants. Table 1 shows

[4] Ogawa and Ito (2002) showed how to calculate such a coordinated basket. They also showed that there may be multiple equilibria, and that letting the market grope for the right values for the common basket could result in a bad equilibrium.

such an estimate conducted by Shimizu (2007). According to her estimate (daily, from January 2006 to December 2006), the weights of the Chinese RMB for the East Asian currencies, except for Singaporean dollar, Brunei dollar (that is fixed to Singaporean dollar) and Thai baht, are above 80 percent. The Vietnamese dong (with weight of 0.99) is basically pegged to the Chinese RMB. The Singaporean dollar is considered to have basket weights very close to its trade weight. The estimated weights in the Singaporean dollar basket is the Chinese RMB being 63%, while the Japanese yen 32%. In the case of Thai baht basket, the Chinese RMB weight is 75%, while Japanese yen is 60%.

At the first sight, the influence of the Chinese RMB on Asian currencies seems to be much larger than that of the Japanese yen. However, this may be a result that these countries still maintain a loose US dollar peg and the Chinese RMB, which is closely following the US dollar movement with a slight appreciation trend (a constant term in the first difference) picks up the dollar influence as its own influence. A conclusive statement must be examined carefully.

In sum, ignoring the US dollar, and have the Chinese RMB and Japanese yen as only two currencies as determinants, the Asian currencies are much more influenced by the RMB movements than yen movements.

6. Political Economy

The currency coordination, not to mention a single currency, cannot be achieved without political leadership and commitment toward the shared value, namely

democracy, similar income levels (using income transfer if necessary), and free movement of capital and labor. Challenges in East Asia to achieve such political determination appear to be insurmountable at this point. In East Asia, economic integration is leading political convergence by far.

Many observers who are familiar with European experiences are skeptical at best about currency coordination in East Asian anytime soon.[5] Many tend to emphasize that there were political leadership toward economic integration and a single currency. The political resolve is quite important. Admittedly, political cohesiveness in East Asia is very weak.

All economists can hope for at this point is to prepare economic tools and instruments that can be readily used when political constellation line up in favor of economic integration and currency coordination, sometime in the future.

7. Global Imbalances and East Asia

Global imbalances—large US current account deficits, that corresponds to large current surpluses in China, other Asian economies and oil producing nations, with capital inflows to the US supporting the US dollar—have dominated discussions in International Financial Institutions (IFIs). One obvious answer to large US current account deficits is to engineer US dollar depreciation that would force expenditure

[5] Wyplosz (2006) attempted to draw lessons from the European integration process as a blueprint for other regions, esp. Asia.

switching of US residents. However, US economy slowing down may cause a worldwide recession rather than rebalancing demand around the world.

US dollar depreciation means that some currencies will appreciate. However, if many currencies maintain a dollar peg or a very gradual crawling peg, then burdens of appreciation would be concentrated on the freely floating currencies. Indeed, this seems to be a serious worry for Europeans, as the Euro has appreciated in the last two years, while appreciation of major East Asian currencies are, at best, very gradual.

The Japanese yen has not appreciated markedly, due to low interest rate and private-sector's investing abroad without intervention since March 2004.

Of course, it is a serious concern for East Asian policy makers that East Asian economies are dependent on exports of final products to the United States, although intra-regional trades of semi-finished goods have increased tremendously. Moreover, if the US dollar depreciates sharply vis-à-vis the East Asian currencies, that would put more dampening effects on the East Asian economies. However, a slowdown of the US economy, a depreciation of the US dollar, and a decline in US imports, or an increase in US exports to East Asia, Europe, and oil-producing nations is an essential part of global demand rebalancing. A major impact of a decrease in US imports will fall on Asia. There are two ways to mitigate the adverse effects of possible dollar depreciation vis-à-vis the East Asian currencies.

This leads to the next observations. First, exchange rate policies of the East Asian countries are better coordinated so that the exchange rates will jointly float against the US dollar and other major currencies outside the region. The East Asian economies have integrated enough that the intra-regional trade ratio is as high as the EU countries, about 50%. Therefore, a sharp fall of the US dollar would cause large changes in the intra-regional exchange rates (like Yen-RMB, Yen-Won, Baht-Yen, etc), unless the Chinese and Malaysian authorities allow much more flexibility for their currencies. One way to make ensure that East Asian currencies move in a coordinated fashion is to adopt a common basket, band regime. Then, they will maintain the stability each other but float jointly against the outside currencies. (Proposals based on a basket, band, and crawl (BBC) proposal and its variants for East Asia have been around for some time. See Williamson (2000), Ito, Ogawa, and Sasaki (1998), Ogawa and Ito (2002) for details.)

Second, economic policies in East Asia can be relaxed as much in anticipation of pressures for dollar depreciation. However, fiscal spending may not be a wise choice in some of the East Asian countries. Japan with a very large government debt has little room for fiscal stimulus. Instead, monetary policy in Japan has room to maneuver as inflation fear is remote. Monetary policy, getting out of deflation, can be "behind the curve" to make sure that economic recovery will lift the economy from 15-year long stagnation and 8-year long deflation. Similarly, deficit spending by the government may not be wise in Korea, Thailand, Indonesia, and the Philippines. They are still getting out of the fiscal deficit problem posed by the management of the 1997 crisis. Only China and Malaysia have some room to stimulate the economy via fiscal policy.

8. Concluding Remarks

The East Asian region contains countries with different exchange rate regimes. The yen is a currency with clean float. Among managed float, the Singaporean dollar, the Thai baht, and the Korean won have been managed with a feature of a genuine basket currency. The Asian currencies are influencing each other. If one currency appreciates, others tend to appreciate, and vice versa.

It is crucially important the East Asian currencies would coordinate better to lessen a chaos and disorderly reactions, if and when the US dollar depreciates in the resolution of the global imbalances. However, the resolution has to come with private-sector initiatives and adjustments, rather than official pushing around a few currencies.

The China can be regarded as having a crawling peg to the US dollar, in spite of PBOC declaration in July 2005 that they will move to managed exchange rate with reference to a basket value. At this point it is difficult to separate the influence of the Chinese RMB and that of the US dollar in the determination of managed float currencies in the region.

When China truly liberalizes its capital controls, say in 10 years, the influences of RMB in the region will be much greater. In ten years, the GDP size of the Chinese economy measured in the market exchange rate will surpass that of Japan. Currencies of countries that have strong ties with China will naturally have incentives to keep the bilateral exchange rate vis-à-vis RMB more stable. Gradually, the Chinese RMB will become a regional key currency,

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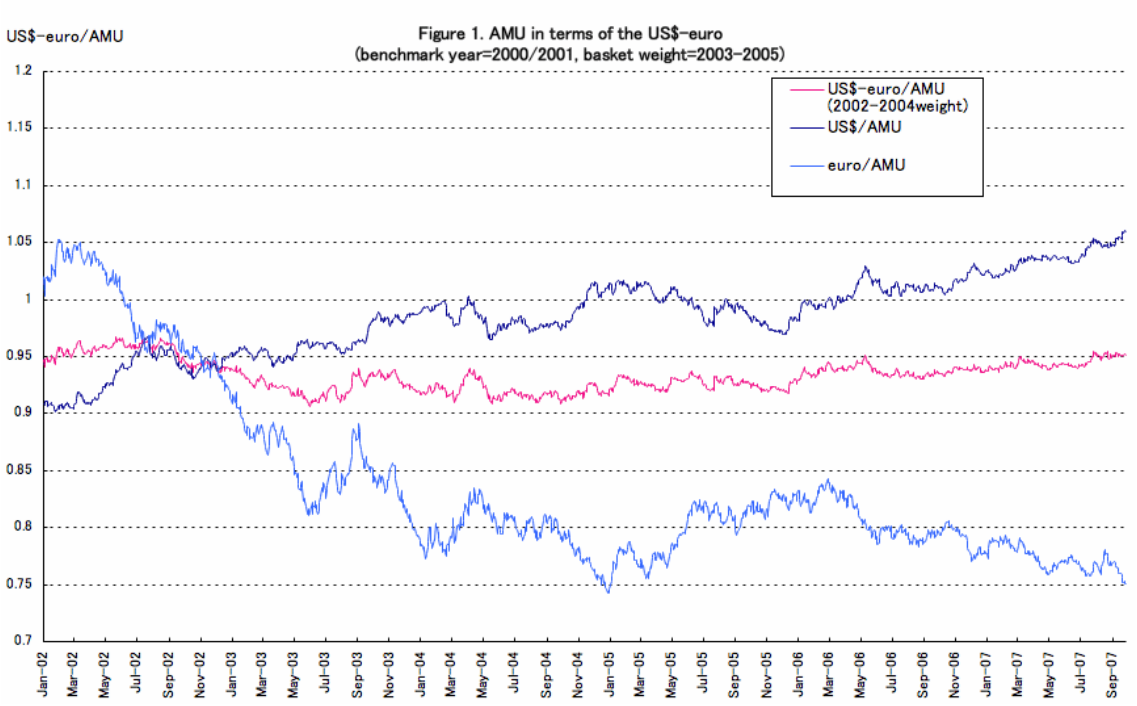

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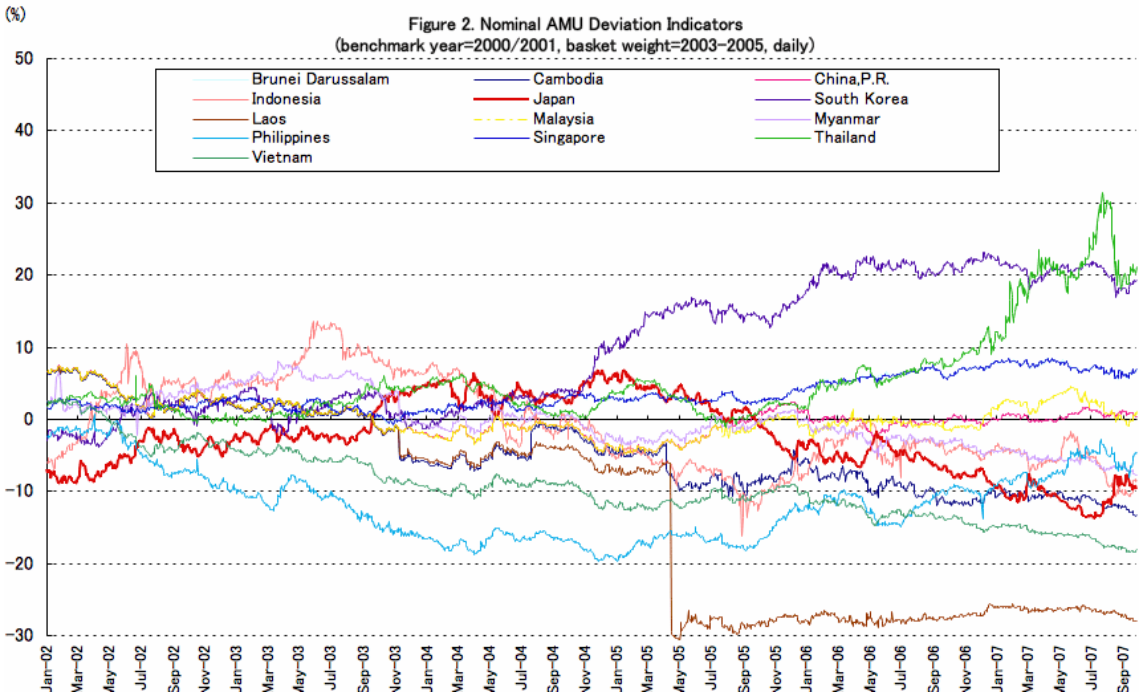

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Table 1: **Weights of RMB and YEN in the determination of Asian Currencies**

Daily, January-December 2006

	Chinese Yuan	Japanese Yen	Adj. R2
Singapore Dollar	0.6343 ***	0.3246 ***	0.8672
	(0.0251)	(0.0272)	
Thai Baht	0.7547 ***	0.1626 ***	0.6009
	(0.0525)	(0.0570)	
Malaysian Ringgit	0.8713 ***	0.1143 **	0.6405
	(0.0532)	(0.0577)	
Philippine Peso	0.8578 ***	0.0462	0.5844
	(0.0565)	(0.0612)	
Indonesian Rupiah	0.8044 ***	-0.0494	0.3302
	(0.0837)	(0.0908)	
South Korean Won	0.8302 ***	0.1108 *	0.6144
	(0.0536)	(0.0582)	
Burunei Dollar	0.6514 ***	0.1939 ***	0.8071
	(0.0285)	(0.0309)	
Cambodia Riel	0.8960 ***	0.0859	0.6500
	(0.0525)	(0.0570)	
Las Kip	0.8795 ***	0.0671	0.6173
	(0.0547)	(0.0593)	
Myanmar Kyat	0.8789 ***	0.0724 **	0.8188
	(0.0328)	(0.0356)	
Vietnamese Dong	0.9935 ***	0.0048	0.9794
	(0.0110)	(0.0119)	

Notes:
(1) The Frankel and Wei regressions.
(2) All the number in parentheses are estimated standard deviation of the corresponding coefficient.
(3) *, **, *** indicates that coefficients are significant at 10%, 5%, and 1%, respectively.

Source: Shimizu(2007, Table5).