7

Influence of the Renminbi on Exchange Rate Policies of Other Asian Currencies

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The East Asian countries, most notably China, are often collectively described as managing, if not manipulating, their exchange rates to be undervalued. They are said to have maintained large current account surpluses and accumulated foreign reserves; along with oil-producing nations, they are a large piece in the puzzle of global imbalances.

However, despite this initial impression, the exchange rate regimes of East Asian countries are diverse and uncoordinated. Some currencies have appreciated more than 25 percent between July 2005 and November 2007, whereas China appreciated only 11 percent during the same period. The lack of exchange rate policy coordination among Asian countries tends to prevent rather than help the global exchange rate realignment and demand rebalancing that is essential to resolve global imbalances.[1] Countries that trade with China and compete with it in exports to third markets are keen not to allow too much appreciation of their own curren-

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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.

cies against the renminbi. When China allows its currency to appreciate only very gradually, the neighboring countries try not to allow sharp appreciation of their own currencies. However, the Asian emerging currencies appreciated more than the renminbi did from July 2005 to November 2007. Would the other Asian currencies have appreciated more if China had allowed more appreciation?

Currently, countries under a 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 have been much more pronounced than the renminbi's very gradual appreciation. However, that Thailand decided on but shortly thereafter rescinded capital controls in December 2006 is circumstantial evidence that these countries do not welcome too great an appreciation against the renminbi or the US dollar.

In turn, China seems to be very much worried about its export competitiveness. Despite US pressure to allow faster appreciation, China has allowed appreciation by only about 11 percent since July 2005—as of November 7, 2007 the exchange rate stood at RMB7.44 to the US dollar, compared with RMB8.28 to the dollar on July 20, 2005. Chinese officials often cite low profit margins of exports, especially textiles and agricultural goods, but the appreciation would be easier to swallow if China were sure that other Asian currencies would follow the renminbi if it appreciated faster.

China most likely is more willing to accept renminbi appreciation if neighboring countries, in addition to Korea and Thailand, allow faster appreciation as well. For their part, East Asian countries definitely are more willing to allow appreciation if renminbi appreciation accelerates. If all of the countries concerned desire joint appreciation but cannot realize it due to a lack of communication and commitment, this can be considered a coordination failure.

I would argue that if the East Asian countries manage to coordinate their exchange rate regimes, the pace of Asian currencies' appreciation against 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), with each country aiming at a stable relationship with it. Various research institutes in the East Asian region, including Ogawa and Shimizu (2005) and the Asian Development Bank (ADB), have explored the possibility of an ACU.

The rest of this chapter is organized as follows. The following section reviews the lessons of the Asian currency crisis regarding exchange rate regimes. The second section explains the exchange rate regimes in East Asia, including the results of regression analysis. The third section reviews

various basket currency proposals, while the fourth discusses the political economy of the exchange rates. The fifth section discusses East Asia's role in resolving global imbalances. The final section concludes the chapter.

Overview of Exchange Rate Developments, 2004–07

This section surveys the trends in nominal exchange rate movements in Asia from January 2004 to July 2005 and July 2005 to November 2007. The currencies included are the Chinese renminbi, Korean won, Singaporean dollar, Thai baht, Malaysian ringgit, Philippine peso, and Indonesian rupiah. Figures 7.1 and 7.2 describe their nominal exchange rates against the US dollar for the respective subperiods.

The sample periods are divided on July 21, 2005, when the renminbi was reformed from the dollar peg to a more flexible regime. The exact announcements will be examined below. Figure 7.1 shows nominal exchange rate movements before the renminbi reform period (January 2004–July 2005), with a benchmark of 100 on January 1, 2004. Higher values denote appreciation and lower values denote depreciation. Four groups in terms of appreciation or depreciation against the US dollar can be identified: The Korean won appreciated by about 15 percent, the Indonesian rupiah depreciated by 15 percent, Malaysia and China explicitly pegged their currencies to the dollar, and the rest fluctuated around the dollar value of January 2004.

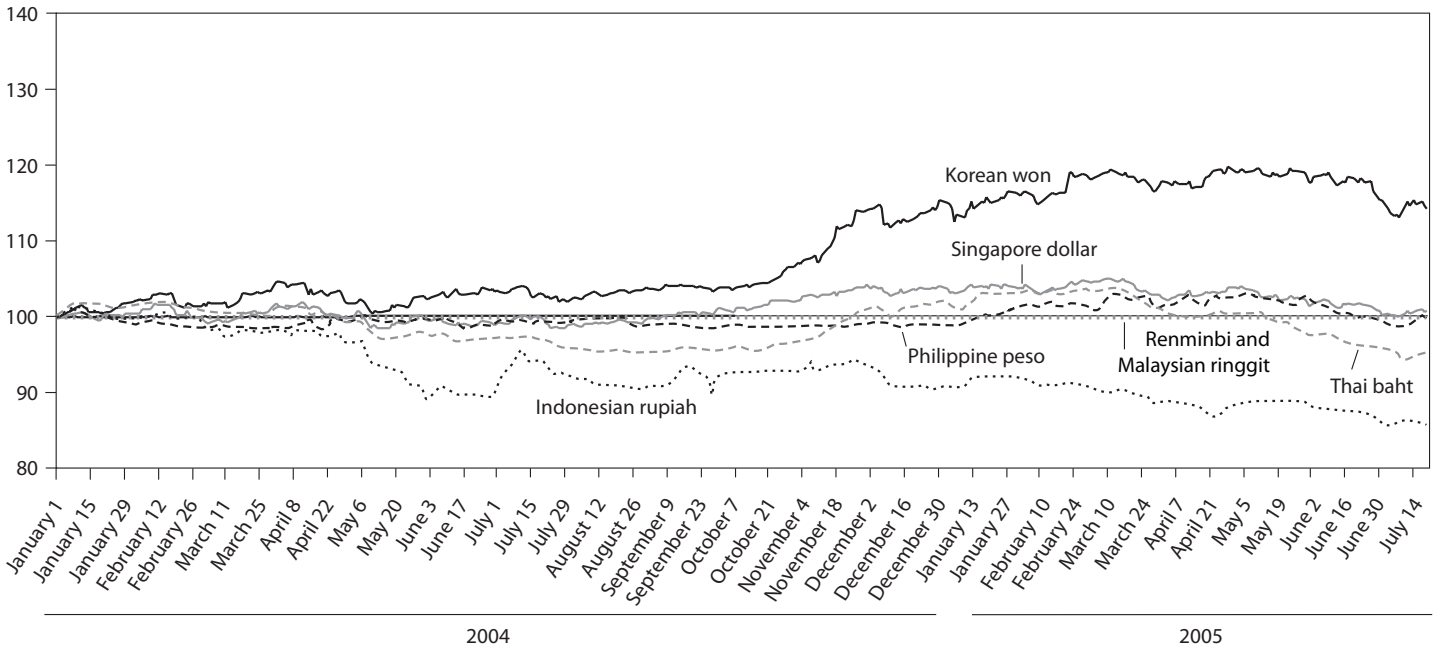
The appreciation of the Korean won was remarkable, especially after October 2004. There was strong pressure on the Korean won to appreciate starting in 2003, and the authorities had intervened to stabilize the won against the dollar for some period, but as the level of necessary intervention became large, the authorities decided to let go in the fall of 2004. The weakest currency was the Indonesian rupiah; political uncertainties and inflation are usually identified as contributing to its depreciation.

On July 21 the Chinese authorities announced that they would revalue the renminbi by 2.1 percent immediately and abandon the currency's US dollar peg.[2] Some Asian currencies appreciated along with the renminbi in the following days. Figure 7.2 shows nominal exchange rate movements from July 21, 2005 to November 7, 2007 from the benchmark of July 20, 2005. After a 2 percent jump on July 21, the renminbi appreciated steadily and gradually, and it has kept a pace of about 5 percent a year since then. There is very little fluctuation around the gradual accent path; the movement is best described as a crawling peg to the US dollar. On November 7, 2007, the renminbi was 11.2 percent above the July 20, 2005.

2. See People's Bank of China, Public Announcement of the People's Bank of China on Reforming the RMB Exchange Rate Regime, July 21, 2005, in appendix 7A to this chapter.

Figure 7.1 Asian currency movements vis-à-vis US dollar: Pre-renminbi reform, January 1, 2004–July 20, 2005

index (January 1, 2004 = 100)

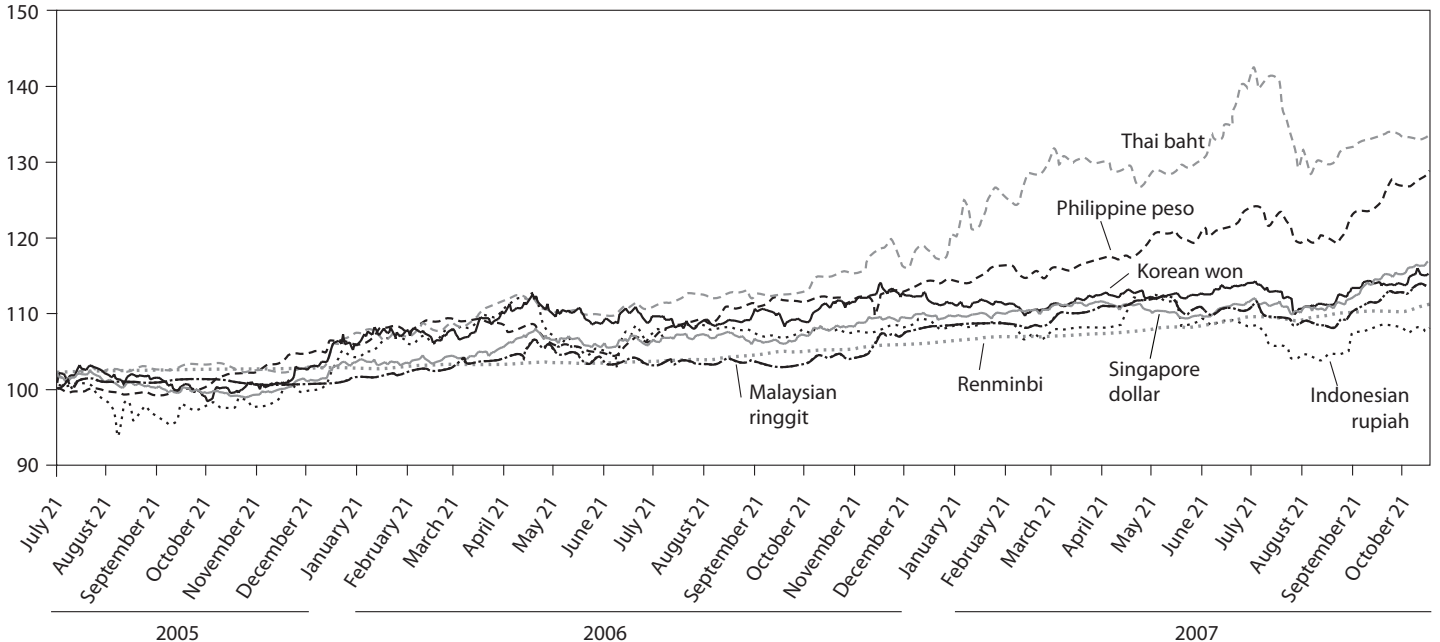


Note: Each exchange rate is the nominal exchange rate vis-à-vis the US dollar. The daily exchange rate is in the ratio of its rate on January 1, 2004.

Source: Datastream.

Figure 7.2 Asian currency movements vis-à-vis US dollar: Post-renminbi reform, July 21, 2005–November 7, 2007

index (July 20, 2005 = 100)



Note: Each exchange rate is the nominal exchange rate vis-à-vis the US dollar. The daily exchange rate is in the ratio of its rate on July 20, 2005.

Source: Datastream.

By contrast, most other Asian currencies appreciated much more than the renminbi after the renminbi reform. By November 7, 2007 the Thai baht had appreciated by 33 percent, the Philippine peso by 29 percent, the Singaporean dollar by 17 percent, the Korean won by 15 percent, and the Malaysian ringgit by 14 percent against their respective values on July 20, 2005. The Indonesian rupiah was the only currency that appreciated less than the renminbi did.

Two facts stand out. First, excepting the Indonesian rupiah, the renminbi was at the bottom of the appreciation ladder among East Asian emerging-market economies. In a sense, the renminbi tended to be a drag on the currency movement rather than a leader in it. This is contrary to the perception that the renminbi is a mover and shaker in emerging Asia. Second, Asian currencies other than the renminbi have become managed floaters. Since the renminbi reform, the Asian currencies have become much more flexible, contrary to the perception that they are collectively pegged to the US dollar for mercantilist motives, most notably expressed by those who advocate the so-called Bretton Woods II view.

A few more observations are also helpful in understanding the magnitude of the appreciations of the Thai baht and Philippine peso, which, at about 30 to 35 percent, are large even by the standards of Asian currencies. Comovements among the currencies of Singapore, Malaysia, and Korea have appeared lately, whether by an act of the market or an act of the monetary authorities.

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 type of exchange rate regime matters. There are two parts to this lesson. First, the well-known part is that a de facto fixed exchange rate regime tends to invite double mismatches and boom-and-bust cycles. Borrowers in an emerging market and lenders in advanced countries overlook the currency risk because of the peg, resulting in double mismatches on banks' balance sheets—that is, long-term local currency assets and short-term foreign currency liabilities. Second, the exchange rate regimes adopted by neighboring countries influence how a country chooses its own exchange rate regime. This aspect ties into the coordination failure of the exchange rate regimes in East Asia.[3] Thailand chose a de facto dollar peg because Malaysia, China, Indonesia, and other economically important neighbors were adopting a de facto dollar peg, as Thai exporters had to compete against neighboring exporters.

Due to the currency crisis of 1997–98, most Asian countries shifted their exchange rate regimes to managed float systems with varying degrees of

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

foreign exchange intervention, the notable exceptions being China, Hong Kong, and Malaysia. China had held the renminbi 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 (PBC) changed its exchange rate regime, causing an immediate 2 percent appreciation, and moved to a more flexible regime. Later, the PBC allowed the renminbi to appreciate very gradually, by 2 to 3 percent a year. Hong Kong has maintained, until now, a fixed exchange rate against the US dollar. Malaysia first floated its currency with the Philippines and Indonesia, right after the Thai baht depreciated, but in September 1998 fixed its exchange rate to the US dollar. It quickly followed China in appreciation on July 21, 2005 and later added more flexibility than the renminbi has. China's exchange rate policy clearly influenced the Malaysian exchange rate regime on July 21, 2005, but Malaysia actually implemented flexible exchange rate management after the one-time jump better than China did.

At present, there are four exchange rate regimes in East Asia. Japan has adopted a free float; monetary authorities have not intervened in the yen since March 17, 2004. Second, Korea, Singapore, Thailand, Indonesia, Malaysia, and the Philippines have adopted managed floating regimes with varying degrees of basket currency features. Hong Kong and China have hard and crawling pegs, respectively, to the US dollar. Others have dollarized (Vietnam, Cambodia, and Laos), established a currency board against the Singaporean dollar (Brunei), and implemented multiple exchange rates with heavy controls (Myanmar), but this final group is out of the scope of analysis in this paper.

The diverse exchange rate regimes, unfortunately, are vulnerable to major global exchange rate shocks. Suppose that the US dollar depreciated against the yen by 10 percent overnight. Because the currencies in the region would react very differently, the currencies of some countries, such as China, would experience windfall gains in export competitiveness by moving more or less with the US dollar. Others would likely suffer appreciation in terms of the real effective exchange rate (REER) as neighbors (China) refused to appreciate against the dollar.

What would be an optimal collective arrangement of exchange rate regimes in East Asia? How much weight would China have in such an arrangement? Any proposed exchange rate regime should allow enough flexibility to adjust to external shocks and changes in fundamentals, but also keep volatility low. The volatility of the exchange rate should also be measured in terms of REER. As intraregional trade ratios have increased to levels comparable to the European Union, keeping REER stable means keeping bilateral exchange rates in the region relatively stable while they jointly float against outside currencies. Europe has pursued the concept of a joint float ever since the snake system of 1979, which led to the introduction of single currency, the euro.

Bilateral exchange rates in the region cannot be stabilized but float against the rest of the world unless the countries agree to keep their exchange rate regimes similar to one another. One way to achieve such a confluence of regimes is to adopt a basket currency system—that is, a country pursues a peg with a narrow band to a common basket comprised of outside currencies with weights roughly reflecting a region's average of trade weights. However, any proposal of a joint float or common basket system in Asia needs China to accept flexible management of the exchange rate in tandem with neighboring countries. More currencies in Asia seem to be accepting a loose basket system, most notably the Singaporean dollar; it is questionable whether China at this moment is embracing such a system as well.

Has China Moved to a Basket Currency?

The announcement of renminbi reform on July 21, 2005[4] was immediately greeted with a welcome note by the Group of Seven, which stated, "Starting from July 21, 2005, China will reform the exchange rate regime by moving into a managed floating exchange rate regime based on market supply and demand with reference to a basket of currencies." It contained three major elements: an immediate 2 percent appreciation of the renminbi to RMB8.11 to the dollar; a daily fluctuation of ± 0.3 percent allowed, with the closing rate being the central rate of the following day; and, as the announcement stated, "The RMB exchange rate will be more flexible based on market condition with reference to a basket of currencies."

A regression analysis can reveal from data whether China's regime moved away from a dollar peg and adopted a basket peg, as the PBC said it would. The following regression, first introduced by Jeffrey Frankel and Shang-Jin Wei (1994), is used to estimate the weight on the three major currencies if the Chinese renminbi is on the basket system:

$$\triangle \text{CHY}_t = \text{Const} + b_1 \triangle \text{USD}_t + b_2 \triangle \text{JPY}_t + b_3 \triangle \text{EUR}_t + e_t \qquad (7.1)$$

where all currencies are in terms of one Swiss franc, CHY is the Chinese renminbi, USD is the US dollar, JPY is the Japanese yen, and EUR is the euro. The symbol $\triangle$ is the log difference operator, making the variable the (approximate) percentage change. In view of the renminbi reform and gradual change in implementation after the reform, regressions are conducted for the three periods: prereform, from January 2, 2004 to July 18, 2005; Post-1, that is, the first year after reform, from July 19, 2005 to July

4. See People's Bank of China, Public Announcement of the People's Bank of China on Reforming the RMB Exchange Rate Regime, July 21, 2005, in appendix 7A to this chapter.

Table 7.1 Basket regression for the Chinese renminbi

Currency	Prereform	Post-1	Post-2
US dollar	1.000	0.938	0.967
Standard error	0.000	0.018	0.015
(t)	6007.43	53.56	64.51
Probability	0.000***	0.000***	0.000***
Yen	0.000	0.070	–0.016
Standard error	0.000	0.018	0.010
(t)	0.08	3.94	–1.55
Probability	0.938	0.000***	0.122
Euro	0.000	0.022	0.007
Standard error	0.000	0.055	0.029
(t)	–0.66	0.39	0.26
Probability	0.508	0.697	0.797
Constant	0.000	–0.020	–0.020
Standard error	0.000	0.008	0.005
(t)	–0.05	–1.80	–4.07
Probability	0.962	0.073	0.000***
$\bar{R}^2$	1.00	0.95	0.96

*** = Estimate is statistically significant at 1 percent level.
Prereform = January 2, 2004 to July 18, 2005
Post-1 = First year after reform (July 19, 2005 to July 18, 2006)
Post-2 = Second year after reform (July 19, 2006 to November 7, 2007)

18, 2006; and Post-2, that is, the second year after reform, from July 19, 2006 to November 7, 2006.

Table 7.1 shows the results. For the prereform period, the renminbi was on the dollar peg, so that the weight of the US dollar is measured as one. Even after the reform, the dollar weight remained very high, though the hypothesis that it equals one is refuted (i.e., the standard error is small). The weight is estimated as 94 percent in the first year after the reform and 97 percent in the second year after the reform. In the first year after the reform, the Japanese yen was estimated to have a weight of 7 percent, although most of this power comes from the July 21 jump of the renminbi and yen together (not shown). The euro also appears to have some weight, but it is not statistically significant. In the second year after the reform, the statistical significance of the Japanese yen disappears. The renminbi hews very close to the dollar peg.

However, in figure 7.2, we also observe that the renminbi became a crawling peg rather than remaining fixed to the dollar, as the value of the renminbi against the dollar climbs steadily over time, at an almost constant but slightly accelerating slope. To confirm this observation, the fol-

Table 7.2 Crawling peg regression for the Chinese renminbi

	Prereform	Post-1	Post-2
Constant	8.2771	8.1260	8.0002
Standard error	0.0000	0.0023	0.0016
(t)	4756.93	3528.32	4922.93
Probability	0.000***	0.000***	0.000***
Trend	0.0000	–0.0005	–0.0015
Standard error	0.0000	0.0000	0.0000
(t)	–26.08	–33.81	4922.93
Probability	0.000***	0.000***	0.000***
$\bar{R}^2$	0.63	0.81	0.99

*** = Estimate is statistically significant at 1 percent level.
Prereform = January 2, 2004 to July 18, 2005
Post-1 = First year after reform (July 19, 2005 to July 18, 2006)
Post-2 = Second year after reform (July 19, 2006 to November 7, 2007)

lowing crawling peg regression is conducted. The level of the renminbi/US dollar exchange rate is regressed on the constant and time.

$$(\mathrm{CHY}_t/\mathrm{USD}_t) = \mathrm{Const} + \mathrm{d}_1\mathrm{t} + \mathrm{e}_t \tag{7.2}$$

Table 7.2 shows that the model has quite a good fit. In the period before reform, the slope is zero, as the renminbi was pegged to the dollar at the time. In the first year after reform, the daily appreciation speed is estimated as 0.05 renminbi to the dollar each day. The speed of appreciation in the second year accelerated to 0.15 renminbi to the dollar each day, three times as fast as the first year. The second year $\bar{R}^2$ is very high, suggesting that the Chinese authorities implemented a crawling peg with very few fluctuations around the constant slope.

In sum, examining table 7.1 leads us to confirm that the renminbi is hardly a basket currency. Table 7.2 confirms our prior guess from figure 7.2 in that the renminbi has become instead a crawling peg against the US dollar, with little flexibility, after the July 2005 reform.

Basket Currencies in Asia

The preceding subsection confirms that the renminbi is still closely tied to the US dollar. This subsection applies the Frankel-Wei basket currency regressions to other Asian currencies:

$$\triangle\mathrm{ASIA}_{it} = \mathrm{Const} + \mathrm{b}_1\triangle\mathrm{USD}_t + \mathrm{b}_2\triangle\mathrm{JPY}_t + \mathrm{b}_3\triangle\mathrm{EUR}_t + \mathrm{e}_{it} \tag{7.3}$$

where $ASIA_i$ is the Asian currency of country i against the Swiss franc. The countries included in the sample are Indonesia, Korea, Malaysia, the Philippines, Singapore, and Thailand. These countries are categorized as emerging Asia countries.

Table 7.3 presents the estimation results for the Prereform, Post-1, and Post-2 periods. Before the renminbi reform of July 2005, Malaysia's currency was pegged to the dollar just as the renminbi was. This is evident in the estimated coefficient, 1.00, of the US dollar. Other currencies in the sample were the basket currencies between the US dollar and the yen. Weights varied from country to country, with the weight of the yen higher for Singapore (30 percent), Korea (22 percent), and Thailand (21 percent). During the Post-1 period, the basket regimes seemed to have been less relevant. The coefficient of determination is uniformly lower. Singapore and Thailand seemed to have developed a genuine basket system weighting all of the three major currencies. Both Singapore and Thailand suppressed the dollar weight below 65 percent and increased the weights of the yen and euro. During the Post-2 period, three changes occurred: The dollar weight increased, the yen weight lowered, and the euro weight increased. No currency had statistically significant weight in the yen. The number of countries with statistically significant weight in the euro increased from two in the Post-1 period to four in Post-2. The Asian currencies behaved quite differently from the renminbi.

In sum, even after the renminbi reform, the Asian currencies have much lower weights on the US dollar than does the Chinese renminbi. Some currencies in some time periods, such as Singapore and Thailand in Post-1, show the character of a basket currency linked to the yen and euro as well as the US dollar. The estimation results of table 7.3 corroborate with figure 7.2.

Renminbi's Influence on Asian Currencies

After the renminbi reform, several observers speculated that Chinese currency movements would have a spillover effect on other Asian currencies. If China allowed the renminbi to appreciate, the currencies of other Asian countries would appreciate as well. Figure 7.2 shows that this speculation was not firmly grounded, at least in the magnitude of appreciation, as other Asian countries allowed their currencies to appreciate more than China did. A more formal analysis to examine the renminbi effect on other Asian currencies would be helpful, but because the Chinese currency has moved closely with the US dollar even after the renminbi reform, econometric problems arise: The simultaneous presence of the US dollar and renminbi as explanatory variables may cause multicollinearity.[5]

5. Shimizu (2008) estimated the movement of an Asian currency in response to the yen, euro, and renminbi, excluding the US dollar. Naturally, the weight of the renminbi turned out to be very large.

Table 7.3 Basket regressions for Asian currencies

Currency	Indonesia	Korea	Malaysia	Philippines	Singapore	Thailand
Prereform						
US dollar	0.765	0.675	1.003	0.885	0.560	0.711
Standard error	0.047	0.041	0.002	0.023	0.019	0.023
(t)	16.2	16.63	578.19	39	30.19	30.32
Probability	0.000***	0.000***	0.000***	0.000***	0.000***	0.000***
Yen	0.178	0.215	–0.002	0.092	0.297	0.213
Standard error	0.045	0.039	0.002	0.022	0.018	0.022
(t)	3.95	5.56	–1.44	4.25	16.81	9.53
Probability	0.000***	0.000***	0.152	0.000***	0.000***	0.000***
Euro	0.131	0.215	0.000	0.035	0.130	0.150
Standard error	0.131	0.113	0.005	0.063	0.052	0.065
(t)	1	1.91	-0.06	0.56	2.52	2.29
Probability	0.32	0.057*	0.953	0.578	0.012**	0.022**
$\bar{R}^2$	0.65	0.69	1.00	0.90	0.90	0.88
Post-1						
US dollar	0.638	0.699	0.888	0.869	0.597	0.633
Standard error	0.121	0.054	0.051	0.040	0.026	0.041
(t)	5.27	12.97	17.33	21.47	23.14	15.44
Probability	0.000***	0.000***	0.000***	0.000***	0.000***	0.000***
Yen	0.021	0.132	0.045	0.046	0.301	0.236
Standard error	0.123	0.055	0.052	0.041	0.026	0.042
(t)	0.17	2.42	0.86	1.12	11.52	5.67
Probability	0.866	0.016**	0.388	0.263	0.000***	0.000***
Euro	0.284	0.293	0.221	–0.064	0.258	0.379
Standard error	0.381	0.170	0.161	0.127	0.081	0.129
(t)	0.75	1.73	1.37	–0.5	3.17	2.94
Probability	0.456	0.085*	0.173	0.615	0.002***	0.0004***
$\bar{R}^2$	0.17	0.60	0.69	0.76	0.87	0.73
Post-2						
US dollar	0.820	0.810	0.781	0.827	0.734	0.889
Standard error	0.062	0.047	0.044	0.077	0.031	0.130
(t)	13.29	17.07	17.76	10.73	23.57	6.84
Probability	0.000***	0.000***	0.000***	0.000***	0.000***	0.000***
Yen	–0.046	0.022	0.020	–0.050	0.029	–0.067
Standard error	0.042	0.033	0.030	0.053	0.021	0.089
(t)	–1.11	0.66	0.66	-0.95	1.36	–0.75
Probability	0.269	0.508	0.512	0.343	0.174	0.452
Euro	0.560	0.430	0.530	0.382	0.406	–0.057
Standard error	0.120	0.092	0.085	0.149	0.060	0.252
(t)	4.69	4.67	6.22	2.56	6.73	–0.23
Probability	0.000***	0.000***	0.000***	0.011**	0.000***	0.82
$\bar{R}^2$	0.57	0.68	0.71	0.43	0.81	0.18

Prereform = January 2, 2004 to July 18, 2005
Post-1 = First year after reform (July 19, 2005 to July 18, 2006)
Post-2 = Second year after reform (July 19, 2006 to November 7, 2007)

Note: Estimated statistics of the constant term are not reported in this table. Asterisks denote that the estimate is statistically significant at the 10 percent (*), 5 percent (**), or 1 percent (***) level.

Table 7.4 shows the result of the following regression:

$$\Delta \text{ASIA}_{it} = \text{Const} + b_1 \Delta \text{USD}_t + b_2 \Delta \text{JPY}_t + b_3 \Delta \text{EUR}_t + b_4 \Delta \text{CHY}_t + e_{it} \quad (7.4)$$

The variable CHY is added on the right-hand side. As predicted, the estimates show some instability. Either USD or CHY may be statistically significant, but not both. Table 7.3 poorly estimates some equations. It may be concluded that because the renminbi is basically a crawling peg, its influence on Asian currencies is not well separated from the US dollar's influence on Asian currencies.

Basket Currency Proposals

Several institutions and individuals have proposed the creation of a basket currency unit in Asia. One early official document was a Japanese-French discussion paper submitted to an Asia Europe Meeting (ASEM) in January 2001 (see Ministry of Finance, Japan and Ministry of Finance, France 2001), which discussed the virtue of a managed exchange rate with reference to a basket currency value for East Asian countries excluding Japan.

Later, basket currency proposals in the region shifted to those including the yen inside the basket. The ACU proposal, first put forward by the ADB in late 2005 and taken over by the finance ministers' process in the Association of Southeast Asian Nations (ASEAN)-plus-three[6] in the ADB annual meeting in May 2006, explicitly included the yen in the basket. The following section discusses two different kinds of baskets. One excludes the yen and the other includes it.[7]

YES Basket: Yen, Euro, and US Dollar

The YES basket consists of the yen, euro, and US dollar. According to the ASEM document of 2001, "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 a basket that includes the yen implicitly assumes that Japan is outside the region that would pursue a basket currency. The basket is formed by the three major global currencies: the dollar, euro, and yen. Suppose that one YES unit is equivalent to 100 yen, 1 US dollar, and 1 euro.

6. That is, 10 ASEAN countries plus Japan, China, and Korea.

7. See Ito (2004) for a proposal of creating a basket bond that is a bond of value with weighted average of underlying national currency–denominated bonds.

Table 7.4 Basket regressions for Asian currencies, renminbi added

Currency	Indonesia	Korea	Malaysia	Philippines	Singapore	Thailand
Post-1						
US dollar	0.575	0.331	0.834	0.862	–0.014	–0.138
Standard error	0.423	0.187	0.179	0.141	0.081	0.134
(t)	1.36	1.77	4.66	6.09	–0.18	–1.03
Probability	0.175	0.077*	0.000***	0.000***	0.858	0.302
Yen	0.016	0.105	0.041	0.045	0.256	0.178
Standard error	0.127	0.056	0.054	0.042	0.024	0.040
(t)	0.13	1.87	0.76	1.07	10.56	4.44
Probability	0.899	0.063*	0.446	0.284	0.000	0.000
Euro	0.283	0.285	0.219	–0.064	0.244	0.362
Standard error	0.382	0.169	0.162	0.128	0.073	0.121
(t)	0.74	1.69	1.36	–0.5	3.34	2.99
Probability	0.459	0.093*	0.176	0.615	0.001	0.003
Renminbi	0.067	0.392	0.057	0.008	0.652	0.822
Standard error	0.432	0.191	0.183	0.144	0.083	0.137
(t)	0.16	2.06	0.31	0.06	7.9	6.01
Probability	0.876	0.041**	0.756	0.956	0.000	0.000
$\bar{R}^2$	0.17	0.61	0.69	0.76	0.90	0.76
Post-2						
US dollar	0.677	0.119	0.371	0.482	0.782	1.237
Standard error	0.226	0.169	0.159	0.281	0.114	0.475
(t)	3	0.7	2.33	1.71	6.87	0.474797
Probability	0.003***	0.482	0.020**	0.088*	0.000***	0.010**
Yen	–0.044	0.033	0.027	–0.044	0.028	–0.073
Standard error	0.042	0.032	0.030	0.053	0.021	0.089
(t)	–1.05	1.03	0.89	–0.84	1.32	–0.81
Probability	0.296	0.301	0.377	0.402	0.188	0.416
Euro	0.559	0.424	0.527	0.379	0.406	–0.055
Standard error	0.120	0.090	0.084	0.149	0.060	0.252
(t)	4.67	4.73	6.24	2.54	6.73	–0.22
Probability	0.000***	0.000***	0.000***	0.012**	0.000***	0.829
Renminbi	0.147	0.715	0.425	0.357	–0.050	–0.360
Standard error	0.224	0.168	0.159	0.280	0.113	0.472
(t)	0.66	4.25	2.68	1.27	–0.44	–0.76
Probability	0.512	0.000***	0.008***	0.204	0.661	0.446
$\bar{R}^2$	0.57	0.70	0.72	0.43	0.81	0.18

Post-1 = First year after reform (July 19, 2005 to July 18, 2006)
Post-2 = Second year after reform (July 19, 2006 to November 7, 2007)

Note: Asterisks denote that the estimate is statistically significant at the 10 percent (*), 5 percent (**), or 1 percent (***) level.

If the exchange rate is 1 US dollar = 1 euro = 100 yen, then YES 1 has a value of 3 US dollars = 3 euros = 300 yen.

Suppose that the yen-dollar and dollar-euro exchange rates become 120 yen = 1 US dollar and 1.4 US dollars = 1 euro. Then YES 1 has a value of

388 yen, 3.23 US dollars, or 2.31 euros. If all Asian currencies aim to keep parity with YES, then Asia jointly appreciates against the yen, depreciates slightly against the US dollar, and depreciates most against the euro.

The YES basket makes sense if the Asian countries export and import from the three advanced regions—the United States, European Union, and Japan—with significant shares and want to keep the average nominal effective exchange rate stable.

Asian Monetary Unit Basket: ASEAN-Plus-Three ACU

The ASEAN-plus-three countries have studied the benefits of having a 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, by market exchange rate or purchasing power parity (PPP) exchange rate. The benchmark can be chosen as a year when imbalances in current accounts were relatively small.

Such an indicator has been developed, calculated, and updated every week by Professors Eiji Ogawa and Junko Shimizu at the Research Institute of Economy, Trade, and Industry (RIETI)–Hitotsubashi University.[8] For weights, they chose the arithmetic average of the share of GDP based on a PPP exchange rate and the share of total trade, exports and imports, in the basket region. According to these criteria, China has the largest share in country weight (37 percent), followed by Japan (26 percent), Korea (10 percent), Singapore (6 percent), Malaysia (5 percent), Thailand (5 percent), Indonesia (4.9 percent), and the Philippines (2.8 percent). Other countries—Brunei, Cambodia, Laos, Myanmar, and Vietnam—had shares of less than 2 percent.

Currently, Ogawa and Shimizu are using the Asian monetary unit to indicate whether and how much the exchange rate of a county deviates from the weighted average of the region's currencies. If all currencies were to peg to the basket with a narrow band, it would work just as the European currency unit did before the euro was introduced.

Political Economy

Currency coordination, not to mention adoption of a single currency, cannot be achieved without political leadership and commitment to shared values—namely, democracy—similar income levels, using income transfer if necessary, and free movement of capital and labor. The challenges in East Asia to creating such conditions appear to be insurmountable at

8. See Ogawa and Shimizu (2005) for the construction of the database. See www.rieti.go.jp for updates.

this point. In East Asia, economic integration is well ahead of political convergence.

Many observers who are familiar with European experiences are skeptical at best about currency coordination in East Asian any time soon.[9] They emphasize that, in Europe, political leadership moved countries toward economic integration and a single currency. Such political resolve is quite important, and admittedly, political cohesiveness in East Asia is very weak. All economists can hope for at this point is to prepare economic tools and instruments to be used readily if the political winds blow in the right direction in favor of economic integration and currency coordination in the future.

Global Imbalances and East Asia

Global imbalances—large US current account deficits corresponding to large current surpluses in China, other Asian economies, and oil-producing nations, with capital inflows to the United States supporting the US dollar—have dominated discussions in international financial institutions. One obvious answer to large US current account deficits is to engineer a US dollar depreciation that would force expenditure switching from imports to domestically produced goods for US residents. However, a slowdown in the US economy may cause a worldwide recession rather than rebalancing demand around the world.

US dollar depreciation also means that some currencies will appreciate. However, if many currencies maintain a dollar peg or a very gradual crawling peg, then the burdens of appreciation would concentrate on freely floating currencies. This seems to be a serious worry for Europeans, as the euro has appreciated markedly in the past two years while the appreciations of major East Asian currencies are very gradual at most. The yen has not appreciated remarkably due to a low interest rate and the private sector's investing abroad without intervention since March 2004.

Although intraregional trade of semifinished goods has increased tremendously, it is a serious concern for East Asian policymakers that their economies depend on exports of final products to the United States. A sharp depreciation of the US dollar against the East Asian currencies would put more dampening effects on the East Asian economies. However, a slowdown of the US economy, depreciation of the dollar, and 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, and the majority of the impact of a decrease in US imports will hit Asia.

9. Wyplosz (2006) attempted to draw lessons from the European integration process as a blueprint for other regions, especially Asia.

There are two ways to mitigate the adverse effects of possible dollar depreciation against East Asian currencies. First, the exchange rate policies of the East Asian countries could be better coordinated so that the exchange rates jointly float against the US dollar and other major currencies outside the region. The East Asian economies have integrated enough that the intraregional trade ratio is as high as it is among EU countries, about 50 percent. A sharp fall in the US dollar would cause large changes in intraregional exchange rates (e.g., yen-renminbi, yen-won, baht-yen) unless the Chinese monetary authorities allowed much more flexibility for their currencies. One way to ensure that East Asian currencies move in a coordinated fashion is to adopt a common-basket band regime, under which East Asian currencies maintain stability with each other but float jointly against outside currencies.[10]

Second, economic policies in East Asia can be relaxed in anticipation of pressures for dollar depreciation. However, fiscal spending may not be a wise choice in some of the East Asian countries. With a very large level of government debt, Japan has little room for fiscal stimuli. Instead, monetary policy in Japan has room to maneuver, as the threat of inflation is remote. Moving out of deflation, monetary policy can be behind the curve to make sure that economic recovery lifts the economy from its 15-year stagnation and 8-year deflation. Similarly, deficit spending by the government may not be wise in Korea, Thailand, Indonesia, and the Philippines, as they are still extricating themselves from the fiscal deficit problems posed by their management of the 1997 crisis. Only China and Malaysia have some room to stimulate their economies through fiscal policy.

Concluding Remarks

The East Asian region contains countries with different exchange rate regimes. The yen operates under a clean float. Among managed floats, the Singaporean dollar, Thai baht, and Korean won have been managed as genuine currency baskets. The Asian currencies also influence each other. If one currency appreciates or depreciates, the others tend to move in the same direction.

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

10. Proposals based on a basket, band, and crawl proposal and its variants for East Asia have been around for some time. See Ito, Ogawa, and Sasaki (1998), Ogawa and Ito (2002), and Williamson (2000) for details.

Despite the July 2005 PBC declaration that it would move the renminbi to a managed exchange rate with reference to a currency basket, the new regime can be regarded as having a crawling peg to the US dollar—no room for flexible management. No influence on other currencies is detected, although it is difficult to estimate the influence of the renminbi and that of the US dollar separately as determinants of baskets of other managed float currencies in the region.

When China truly liberalizes its capital controls, say, in 10 years, the renminbi's influence in the region will be much greater. In 10 years the GDP of the Chinese economy measured by the market exchange rate will surpass that of Japan. Currencies of countries with strong ties with China will naturally have incentives to keep their bilateral exchange rates against the renminbi more stable. Gradually the renminbi will become a key regional currency. At present, the renminbi's influence on the currencies in the region appears quite limited. The East Asian currency movements after the Chinese reform of the exchange rate system on July 21, 2005 shows that the degree of appreciation by China is the second least (after Indonesia). There is a possibility that China is setting the floor of appreciation in East Asia. The coordination among the East Asian countries, aiming at a joint float against the dollar and the euro may bring less turmoil in the intraregional trading relationship if and when the dollar depreciates sharply against free or managed float currencies.

References

Blanchard, Olivier, Francesco Giavazzi, and Filipa Sa. 2005. The US Current Account and the Dollar. *Brookings Papers on Economic Activity 2005,* no. 1: 1–66.

Frankel, Jeffrey, and Shang-Jin Wei. 1994. Yen Bloc or Dollar Bloc? Exchange Rate Policies of the East Asian Economies. In *Macroeconomic Linkage: Savings, Exchange Rates, and Capital Flows*, ed. Takatoshi Ito and Anne O. Krueger. Chicago: University of Chicago Press.

Ito, Takatoshi. 2004. Promoting Asian Basket Currency Bonds. In *Developing Asian Bond Markets,* ed. Takatoshi Ito and Yung Chul Park. Canberra: Asia Pacific Press at the Australian National University.

Ito, Takatoshi. 2006. A Case for a Coordinated Basket for Asian Countries. In *A Basket Currency for Asia*, ed. Takatoshi Ito. London: Routledge.

Ito, Takatoshi, Eiji Ogawa, and Yuri Nagataki Sasaki. 1998. How Did the Dollar Peg Fail in Asia? *Journal of the Japanese and International Economies* 12, no. 4 (December): 256–304.

Ministry of Finance, Japan, and Ministry of Finance, France. 2001. Exchange Rate Regimes for Emerging Market Economies. Paper presented at the Third ASEM Finance Ministers' Meeting, Kobe, Japan, January 13–14. Available at www.mof.go.jp (accessed on December 26, 2007).

Obstfeld, Maurice, and Kenneth S. Rogoff. 2005. Global Current Account Imbalances and Exchange Rate Adjustments. *Brookings Papers on Economic Activity 2005,* no. 1: 67–123.

Ogawa, Eiji, and Takatoshi Ito. 2002. On the Desirability of a Regional Basket Currency Arrangement. *Journal of the Japanese and International Economies* 16, no. 3 (September): 317–34.

Ogawa, Eiji, and Junko Shimizu. 2005. *A Deviation Measurement for Coordinated Exchange Rate Policies in East Asia*. RIETI Discussion Paper Series 05-E-017. Tokyo: Research Institute of Economy, Trade, and Industry.

Shimizu, Junko. 2008. On the Asian Monetary Unit (in Japanese). *Meikai Economic Review* (forthcoming).

Williamson, John. 2000. *Exchange Rate Regimes for Emerging Markets: Reviving the Intermediate Option*. POLICY ANALYSES IN INTERNATIONAL ECONOMICS 60. Washington: Institute for International Economics.

Wyplosz, Charles. 2006. Deep Economic Integration: Is Europe a Blueprint? *Asian Economic Policy Review* 1, no. 2: 259–79.

Appendix 7A
Public Announcement of the People's Bank of China on Reforming the RMB Exchange Rate Regime, July 21, 2005

With a view to establish and improve the socialist market economic system in China, enable the market to fully play its role in resource allocation as well as to put in place and further strengthen the managed floating exchange rate regime based on market supply and demand, the People's Bank of China, with authorization of the State Council, is hereby making the following announcements regarding reforming the RMB exchange rate regime:

1. Starting from July 21, 2005, China will reform the exchange rate regime by moving into a managed floating exchange rate regime based on market supply and demand with reference to a basket of currencies. RMB will no longer be pegged to the US dollar and the RMB exchange rate regime will be improved with greater flexibility.
2. The People's Bank of China will announce the closing price of a foreign currency such as the US dollar traded against the RMB in the interbank foreign exchange market after the closing of the market on each working day, and will make it the central parity for the trading against the RMB on the following working day.
3. The exchange rate of the US dollar against the RMB will be adjusted to 8.11 yuan per US dollar at the time of 19:00 hours of July 21, 2005. The foreign exchange designated banks may adjust quotations of foreign currencies to their customers.
4. The daily trading price of the US dollar against the RMB in the interbank foreign exchange market will continue to be allowed to float within a band of ±0.3 percent around the central parity published by the People's Bank of China, while the trading prices of the non-US dollar currencies against the RMB will be allowed to move within a certain band announced by the People's Bank of China.

The People's Bank of China will make adjustment of the RMB exchange rate band when necessary according to market development as well as the economic and financial situation. The RMB exchange rate will be more flexible based on market conditions with reference to a basket of currencies. The People's Bank of China is responsible for maintaining the RMB exchange rate basically stable at an adaptive and equilibrium level, so as to promote the basic equilibrium of the balance of payments and safeguard macroeconomic and financial stability.

Comment
The Regional Currency Unit and Exchange Rate Policy Cooperation in East Asia

YUNG CHUL PARK

As part of the effort to promote cooperation for financial and monetary integration in East Asia, in 2006 policymakers from the Association of Southeast Asian Nations (ASEAN)-plus-three—China, Japan, and Korea—agreed to explore steps to create regional currency units (RCUs) as a sequel to two other regional initiatives, the Chiang Mai Initiative and Asian Bond Market Initiative. This agreement was preceded by a proposal to create an Asian currency unit (ACU), forwarded by the Asian Development Bank (ADB) and a number of Japanese economists, among them Mori, Kinukawa, Nukaya, and Hashimoto (2002), Ogawa (2006), and Ogawa and Shimizu (2006a).

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1. In the Ogawa (2006) construction, the 13 ASEAN-plus-three currencies are weighted by their relative GDPs valued in terms of purchasing power parity (PPP) and total trade volumes, the sum of exports and imports. To reflect the most recent trade relationships and economic trends, Ogawa (2006) uses the averages of these variables for the most recent three years for which data are available. The value of the AMU is then quoted in terms of a weighted average of the two major international currencies, the US dollar and the euro. The weights of the two currencies are the shares of the United States and the euro area in the total trade of the ASEAN-plus-three countries and set at 65 percent and 35 percent, respectively. The benchmark period of the AMU exchange rate against the dollar and euro, for which the

Both the ADB and Ogawa (2006) define the ACU, or Asian monetary unit (AMU), as a basket of the 13 currencies of the ASEAN-plus-three member countries weighted by their relative importance in terms of GDP, trade volume, population, and the degree of capital account liberalization.[1]

If the ACU is an Asian version of the European currency unit (ECU), it is an accounting unit. However, it is suggested that

- the unit could assist ASEAN-plus-three policy authorities in their conduct of exchange rate policy and be a surveillance indicator for regional coordination of exchange rate policy in East Asia;[2]
- the ACU could be adopted as an internal common currency basket to which the ASEAN-plus-three members, except Japan, could link their currencies (Ogawa and Shimizu 2006);
- the ACU could facilitate the creation of a regional market for basket bonds denominated in the ACU;[3] and
- the ACU could be an intermediate step toward making the yen the anchor currency for the member states of ASEAN-plus-three (Ogawa and Shimizu 2006b)

Such additional functions make the ACU more than a simple numeraire, understandably generating a certain amount of confusion about its possible role in the East Asia.

ACU as a Regional Accounting Unit

How does creating the ACU contribute to exchange rate policy coordination and monetary integration in East Asia? The European Union's experience with the ECU may provide both lessons and answers.

The ECU was a political gesture toward monetary union. As a unit of account, it was symbolic, just as the special drawing right (SDR) is a symbol for a future world currency. The ECU was used as an internal accounting unit for all official EU transactions and accounts, although the member central banks did not use it in their own transactions. As seen

AMU exchange rate is set at unity, is chosen for a period (2000–2001) when the total trade balance of the 13 countries with the rest of the world and the total trade balance of ASEAN-plus-two (excluding Japan) with Japan are relatively close to zero.

2. See Haruhiko Kuroda, Towards Deeper Asian Economic Integration: Progress and Prospects, speech at the Asia Business Conference, Harvard University, Boston, February 11, 2006; Haruhiko Kuroda, Challenges of Regional Cooperation and Integration in Asia, speech at the Symposium on Perceptions on Asian Economic Cooperation, Tokyo, January 25, 2006.

3. See Haruhiko Kuroda, "The Conundrums of Global Bond Markets—An Asian Perspective," address at the Global Bond Summit, Hong Kong, November 16, 2005.

from the management of the European Monetary System (EMS), the ECU played no particular role in stabilizing the intramember exchange rates of the constituent currencies, although it was one of the four elements of the EMS in addition to the grid, mutual support, and a commitment to joint decision of realignments (Baldwin and Wyplosz 2004, chapter 12).

Initially, the ECU was expected to impose a symmetric burden on both weak and strong currencies, preventing them from intervening in the market to serve their own interests. In reality, countries with weak currencies intervened in the market well before the limits of the system were reached, so the burden was largely asymmetric. The only real lasting effect of the ECU is that when the euro became the European Monetary Union's new unit of account, its conversion rate was one ECU to one euro, an obscure stipulation of the Maastricht Treaty.[4]

ACU as the Numeraire for Asian Basket Bonds

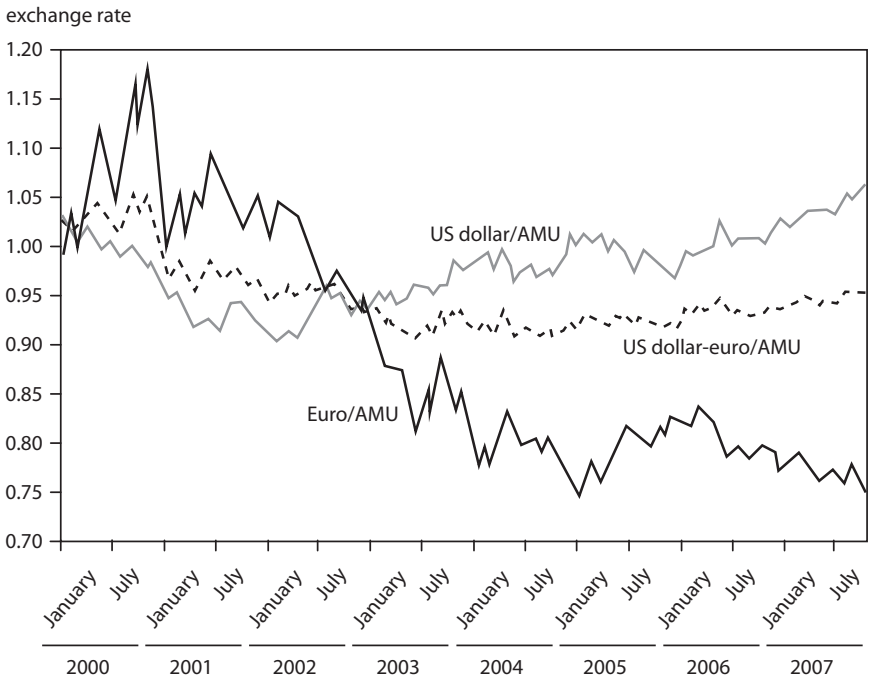
In the past a few attempts to issue bonds denominated in a basket of currencies in Europe have been unsuccessful. Debt instruments denominated in the ECU were issued in Europe, but Dammers and McCauley (2006) show that these instruments owed their limited success in the 1980s and 1990s to restrictions on internationalization of the Deutsche mark and speculative investments. Certainly the European Union did not encourage or render any institutional support for developing a market for bonds denominated in the ECU.

Notwithstanding the European experience, the advocates of Asian basket bonds, however denominated, should be able to justify public sector involvement in creating a market for such an instrument. It is unclear what the advantages are of holding basket bonds over bond portfolios consisting of bonds in different currencies. Market participants may prefer bond portfolios diversified across currencies to basket bonds, as they are more flexible in managing return and risk profiles of their investments. If there is demand for basket bonds, it is reasonable to argue that private institutions would not leave the market opportunity unexploited. That is, investment banks and securities firms would be prepared to create and market bonds denominated in many different baskets of different currencies as long as there is demand for them. The absence of a regional accounting unit does not stand in the way of developing markets for basket bonds.

Failures of the market, regulatory controls, or the insufficiency of market infrastructure may have prevented the development of markets for basket bonds in Asia. If that is the case, advocates of Asian basket bonds should identify what these impediments are and how they could be mitigated before proposing public sector involvement in fostering basket bond markets in Asia.

4. The author owes this point to Charles Wyplosz.

Figure 7.C1 Asian monetary unit (AMU) in terms of the euro and US dollar, 2001–07



Note: Benchmark year = 2000/2001; basket weight = 2003–05.

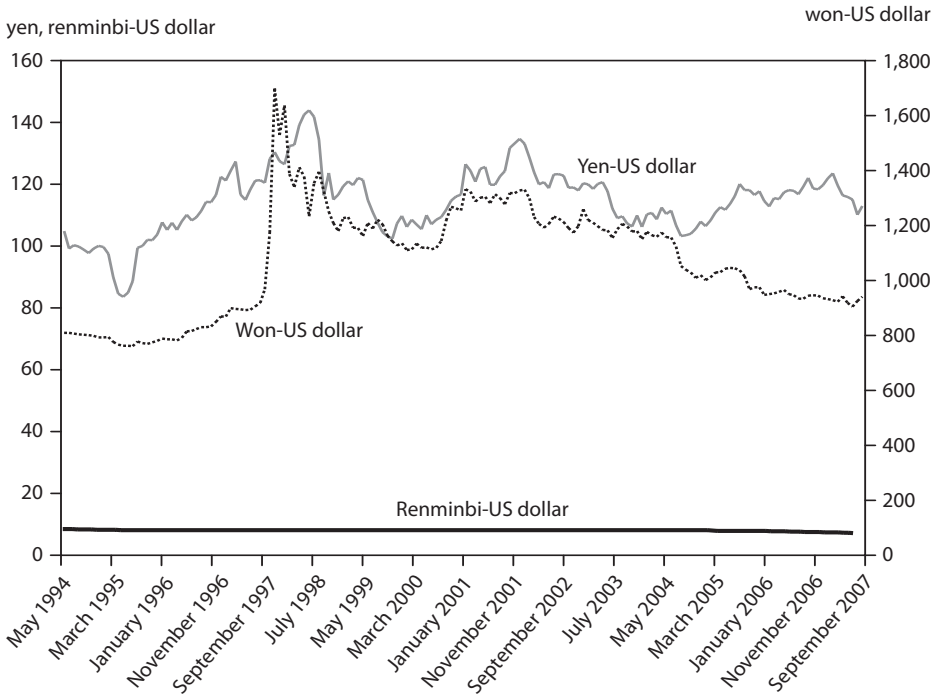
Source: Ogawa (2006).

ACU as a Surveillance Indicator for Exchange Rate Policy Coordination

The role of the ECU in EU monetary unification makes it clear that simply creating the AMU will not strengthen exchange policy coordination in East Asia. What is needed for coordination in East Asia is a collective regional exchange rate regime, such as the exchange rate mechanism adopted by the European Community as part of the EMS or a common basket pegging. This can be seen from recent movements of some of the key East Asian currencies against the US dollar, euro, and AMU.

Figure 7.C1 depicts changes in the AMU exchange rate in terms of the US dollar and euro. It has appreciated slightly against the dollar and depreciated a great deal against the euro since mid-2002, largely because of the weakening yen and inflexibility of the dollar/renminbi exchange rate. Because ASEAN-plus-three as a group has been running sizable surpluses in trade with both the United States and European Union, which have be-

Figure 7.C2 Nominal exchange rates of the yen, renminbi, and won against US dollar, 1994–2007



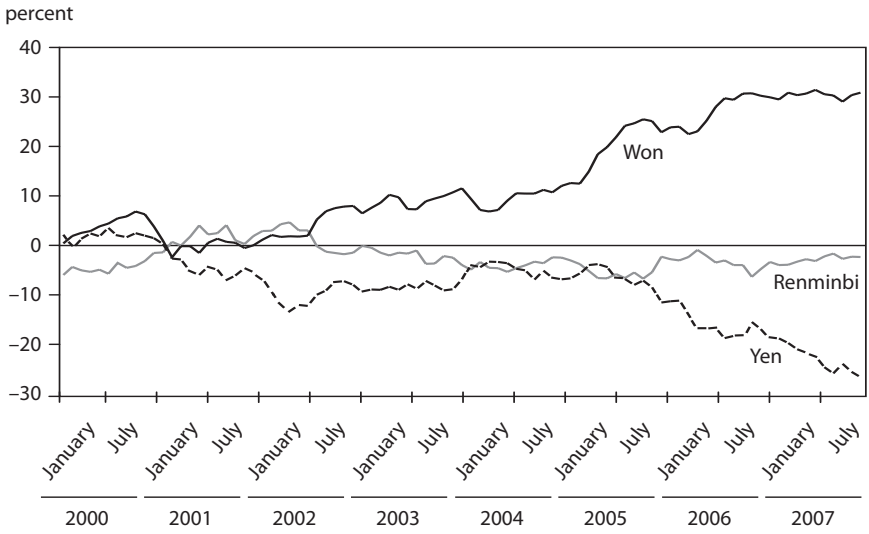
Source: Bank of Korea.

come the major sources of global imbalance, it may be in the interest of ASEAN-plus-three to let the AMU appreciate against the dollar and euro. What could these countries do collectively to bring about such an adjustment? The yen is a component currency of the AMU. But because it is a free floating currency, Japanese authorities are not likely to intervene in the dollar/yen market. This means that other members of ASEAN-plus-three will have to adjust their exchange rates, although the yen is largely responsible for the weakening of the AMU against the dollar and the euro.

Except for Japan and Singapore, the other member countries of ASEAN-plus-three do not have a domestic currency/yen market and their currencies are largely nonconvertible. As a result, the only way they can engineer an appreciation of the ACU against the dollar or euro is to intervene in their local currency/dollar markets to induce an appreciation of their currencies against the dollar. If they do, then their currencies will strengthen further against the yen while Japan is running a surplus with them.

As figure 7.C2 shows, the won appreciated against the dollar by 11.6 percent and the renminbi by 9.3 percent, while the yen depreciated by 12 percent between early 2005 and September 2007. These changes in the

Figure 7.C3 Asian monetary unit (AMU) exchange rates (renminbi, yen, and won): Real AMU deviation indicators, 2000–2007



Note: Benchmark year = 2000/2001; basket weight = 2000–2004, monthly.

Source: Research Institute of Economy, Trade, and Industry, Tokyo.

dollar exchange rates of the three currencies have led to widely divergent movements of their ACU exchange rates, as figure 7.C3 shows.

Figure 7.C3 tracks the movements of the yen, renminbi, and won against the ACU estimated by Ogawa (2006). Compared with the base period, by the end of September 2007 the won appreciated by almost 20.7 percent against the ACU while the yen depreciated by more than 6 percent and the renminbi returned to parity after a period of depreciation. The major cause of these large and varying deviations was the depreciation of the yen against both the renminbi and the won.

Under such circumstances, if China and Korea were to stabilize their AMU exchange rates to coordinate their exchange rate polices, they would have to intervene jointly in their local currency/dollar markets. China would have to strengthen its currency against the dollar, whereas Korea would need to bring about a depreciation of the won against the dollar. If China does not let the renminbi appreciate, Korea will have to assume a greater burden of adjustment, even though it is running a surplus in its US trade. Thus countries such as Korea and Thailand are thrown into an impossible situation in which they must weaken their currencies against the dollar to keep their currencies in line with the AMU but let their dollar exchange rates appreciate for the AMU to appreciate against the dollar as well.

As long as the yen remains a free-floating currency and China is reluctant to revalue its currency, the AMU will be of little use as a surveillance indicator for regional exchange policy coordination. It also cannot provide any useful guidelines to individual members of ASEAN-plus-three in formulating their exchange rate policies. In the highly unlikely case in which China, Japan, and Korea intervened to stabilize their AMU exchange rates in term of the dollar or euro, they would have to agree beforehand to a set of rules governing intragroup exchange rate adjustments. What is needed is a collective regional exchange regime.

ACU as a Common Basket of Internal Currencies for ASEAN-Plus-Three

The regime shift in both China and Malaysia to a basket arrangement in 2004 has underscored the need for closer coordination of exchange rate policy in East Asia. As Kawai (2002) notes, South Korea and Thailand have shifted to a de facto currency basket arrangement similar to Singapore's managed float since the 1997–98 crisis. The movements of both the nominal and real effective exchange rates of Indonesia and the Philippines also indicate that their currencies are linked to a basket of the currencies of their major trading partners. Practically all seven emerging economies in East Asia—the original five ASEAN countries, China, and South Korea—are now explicitly or implicitly on a variety of basket arrangements.

Now that the seven Asian economies have all adopted a similar basket arrangement, they will probably monitor changes in the nominal and real effective exchange rates of other members to make sure there is no erosion in their relative export competitiveness. If any one of the seven ASEAN-plus-three members moves to weaken its currency against the dollar, it will set off a competitive devaluation throughout the region. Therefore, the seven countries have a common interest in adopting a collective exchange rate regime to prevent such competitive skirmishes.[5]

According to Williamson (2005), the seven emerging economies will benefit more from adopting a common basket of external currencies, including the dollar, the euro, and the yen, than from adopting different baskets.[6] Common basket pegging would not only reduce room for competitive devaluation for export promotion but also help adjust dollar ex-

5. With a new regime in place and its growing economic influence in the region as leverage, China may be in a position to initiate the discussion on coordinating exchange rate policies among the seven countries.

6. Several Japanese economists have also advocated similar arrangements for East Asia's emerging economies. See Ito and Ogawa (2002), Kawai (2002), and Kawai and Takagi (2000). These economists now argue that the ACU is a more appropriate common basket for ASEAN-plus-three.

change rates simultaneously and improve the chance for cooperation on monetary integration in the long run.

Ogawa and Shimizu (2006b) argue that the AMU they propose can be a common basket for the ASEAN-plus-three countries, except Japan. According to their proposal, the ACU will not be entirely an internal basket to ASEAN-plus-three, as the yen will remain outside of the pegging arrangement as a free-floating currency. However, the yen will dominate, more so if the weights of the constituent currencies are calculated in terms of nominal GDP instead of the GDP at purchasing power parity (PPP). With the yen in the basket, a great deal of variations of the ACU against the dollar and euro would result from changes in the dollar/yen or euro/yen exchange rates.

Most of the changes in the ACU exchange rates of the 12 countries of ASEAN-plus-three will also be caused by changes in their bilateral exchange rates against the yen, as has happened in recent years. The 12 members may then ask why the yen, which will increase the variability of the ACU against the dollar and euro as well as that of their ACU exchange rates, should be included in a common basket to be chosen for exchange rate policy cooperation. In theory, the common pegging to the AMU may serve as a mechanism for internal exchange rate adjustments among the ASEAN-plus-three members if Japan forgoes its free-floating status. But even in this case, it is highly uncertain whether the member countries could agree to a complicated and elaborate mechanism of intragroup exchange rate adjustments that a common pegging would entail.

If Japan cannot or does not want to give up its free-floating status, the preceding analysis does not suggest that the ACU without the yen would be a more viable basket for ASEAN-plus-two. An ACU composed of the ASEAN-plus-two currencies would be dominated by the renminbi, as China is by far the largest economy in the group. The ASEAN five and Korea, not to mention ASEAN latecomers, would be marginalized in such an ACU; in reality, its creation would be equivalent to making the renminbi a regional anchor currency and forming a de facto renminbi bloc. Whatever the economic rationale behind such a currency bloc, ASEAN-plus-Korea will find it politically unacceptable to join the renminbi bloc.

The preceding analysis raises serious doubts as to the viability of the ACU as either a common internal basket for or an indicator monitoring changes in the exchange rate policies of the ASEAN-plus-three countries. Why, then, is Japan at the forefront in advocating the creation of the ACU, knowing it cannot be part of the arrangement? Ogawa and Shimizu (2006b) offer an answer: In their view, the ACU can be an intermediate regime to creating a yen bloc in East Asia. In their proposal, ASEAN-plus-two members tie their currencies to the AMU first; after a period of experimentation with common pegging, they choose the yen as the anchor currency. Ogawa and Shimizu do not explain why the yen should be the key regional currency, although it has become less attractive than the British pound as a reserve currency in recent years.

In conclusion, creating a regional currency unit, as proposed by ASEAN-plus-three, will be mostly a symbol that the member states are committed to monetary cooperation and integration in East Asia as a long-run objective. In this regard, the creation will be a welcome development. However, following the European model, unless it is followed by the establishment of a mechanism for exchange rate policy coordination and mutual support among the members, the ACU will end up as only a political gesture.

References

ASEAN Plus Three. 2006. Joint Ministerial Statement of the ASEAN Plus Three Finance Ministers Meeting. Presented at the ninth ASEAN+3 finance ministers meeting, Hyderabad, India, May 4.

Baldwin, Richard E., and Charles Wyplosz. 2004. *The Economics of European Integration*. London: McGraw-Hill.

Dammers, Clifford R., and Robert McCauley. 2006. Basket Weaving: The Euromarket Experience with Basket Currency Bonds. *BIS Quarterly Review* (March): 79–89.

Frankel, Jeffrey, and Andrew Rose. 1998. The Endogeneity of the Optimum Currency Area Criteria. *Economic Journal* 108, no. 449: 1009–25.

Fratzscher, M. 2001. *Financial Market Integration in Europe: On the Effects of EMU on Stock Markets*. Working Paper Series no. 48. Frankfurt: European Central Bank.

Ito, Takatoshi, Eiji Ogawa, and Yuri N. Sasaki. 1998. How Did the Dollar Peg Fail in Asia? *Journal of the Japanese and International Economies* 12: 256–304.

Ito, Takatoshi, and Eiji Ogawa. 2002. On the Desirability of a Regional Basket Currency Arrangement. *Journal of Japanese and International Economies* 16: 317–34.

Kawai, Masahiro. 2002. Exchange Rate Arrangements in East Asia: Lessons from the 1997–98 Currency Crisis. Paper presented at the tenth International Bank of Japan conference, Exchange Rate Regimes in the 21st Century, sponsored by the Institute for Monetary and Economic Studies, Bank of Japan, Tokyo, July 1–2.

Kawai, Masahiro, and Shinji Takagi. 2000. *Proposed Strategy for a Regional Exchange Rate Arrangement in Post-Crisis East Asia.* World Bank Policy Research Working Paper 2503. Washington: World Bank.

Mori, Junichi, Maoyoshi Kinukawa, Hideki Nukaya, and Masashi Hashimoto. 2002. *Integration of East Asian Economics and a Step by Step Approach Towards a Currency Basket Regime.* IIMA Research Report 2 (November). Institute for International Monetary Affairs.

Murase, Tetsuji. 2004. The East Asian Monetary Zone and the Roles of Japan, China, and Korea. Kyoto University. Photocopy.

Ogawa, Eiji. 2006. *AMU and AMU Deviation Indicators*. Tokyo: Research Institute of Economy, Trade and Industry.

Ogawa, Eiji, and Junko Shimizu. 2006a. *AMU Deviation Indicator for Coordinated Exchange Rate Policies in East Asia and Its Relation with Effective Exchange Rates*. RIETI Discussion Paper Series 06-E-002 (January). Tokyo: Research Institute of Economy, Trade, and Industry.

Ogawa, Eiji, and Junko Shimizu. 2006b. Progress toward a Common Currency Basket System in East Asia. Paper presented at the 5th Asia Pacific Economic Forum, sponsored by Kangwon National University, Chuncheon, Korea, July 5–6.

Park, Yung Chul. 2007. Whither Financial and Monetary Integration in East Asia? *Asian Economic Papers* 6, no. 3: 95–128.

Williamson, John. 2005. *A Currency Basket for East Asia, Not Just China*. Policy Briefs in International Economics 05-1. Washington: Institute for International Economics.

Comment
The End of Europe's Long-Standing Indifference to the Renminbi

JEAN PISANI-FERRY

Is the renminbi's exchange rate an important issue for Europe? For a long time, it seemed as though it was not. As recently as 2006–07, when Henry Paulson, secretary of the US Treasury, was calling the US-China economic relationship the most important in the world and no less than three congressional bills envisaged potential trade retaliation against an allegedly deliberate currency undervaluation, Europe was surprisingly silent. It apparently had no strong views on either the exchange rate regime or the valuation of the renminbi.

Ministries of finance and the European Central Bank (ECB) investigated the issue and discussed it in contacts with Chinese counterparts, but it was not prominent on policymakers' agendas and was hardly discussed publicly. When asked, officials either referred to the latest Group of Seven (G-7) communiqué or replied that the issue was best dealt with behind closed doors in discussions between ministers or among central bankers. Europe was apparently relying on the implicit assumption that, to it, the issue was second order, and in any case, its interests coincided with those of the United States. Therefore, Europe could rely on US activism for all practical purposes.

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The situation began to change only in autumn 2007 as the Eurogroup, an informal gathering of euro-area finance ministers, began a more in-depth discussion of the matter. On October 8, 2007 the group issued a statement that "in emerging countries with large and growing current account surpluses, especially China, it is desirable that their effective exchange rates move so that necessary adjustments occur" and decided to initiate direct discussion with China's leadership. At the end of November, Eurogroup President Jean-Claude Juncker, ECB President Jean-Claude Trichet, and European Commissioner Joaquín Almunia were sent to Beijing for the first direct bilateral consultations on monetary and exchange rates matters. The Europeans, however, remain guarded in expressing their views on China's exchange rate policy.

Is there a rationale for this difference in attitudes between the two sides of the Atlantic? Or is the euro area only slower in reacting to China's emergence as a major surplus country in the world economy? This is the issue I intend to investigate in this paper. To this end, I examine five potential explanations of transatlantic differences of view: that China does not matter that much to Europe; that the renminbi-US dollar exchange rate is a bilateral issue; that the alternatives are worse; that the Europeans have divergent interests; and that the euro area does not have an exchange rate policy. After examining these five potential explanations, I conclude this comment in the last section.

China Does Not Matter That Much to Europe

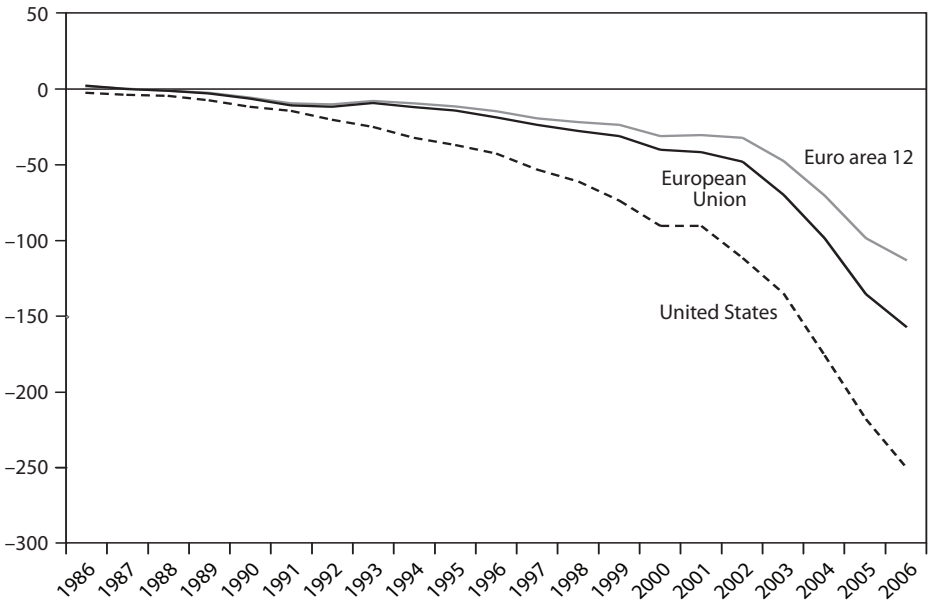
Many observers would suggest that Europe behaves as it does because China is a much more important economic partner for the United States than it is for Europe. This is a widely held perception, probably attributable to the rather smooth development of EU-China relations. In contrast with the emotional, generally politicized, and sometimes tense character of US-China relations, EU-China relations have only recently become a matter of public interest in Europe.[1] Previously, the international rise of China and its global economic implications had long remained underestimated, sometimes almost unnoticed. In the 1990s and early 2000s, political energy was essentially devoted to addressing internal issues, such as the creation of the single market and the euro or enlargement.

To further illustrate the apparent neglect, in 2000, in response to the perceived challenge of that time—the emergence of the so-called new economy in the United States—Europe adopted a new economic strategy, the Lisbon agenda, which essentially ignored the various opportunities and

1. The first EU policy paper on China was issued in 1995, almost two decades after the Chinese economy had begun its transformation. The first EU-China summit meeting occurred in 1998.

Figure 7.C4 Goods and services trade deficit with China, 1986–2006

billions of US dollars



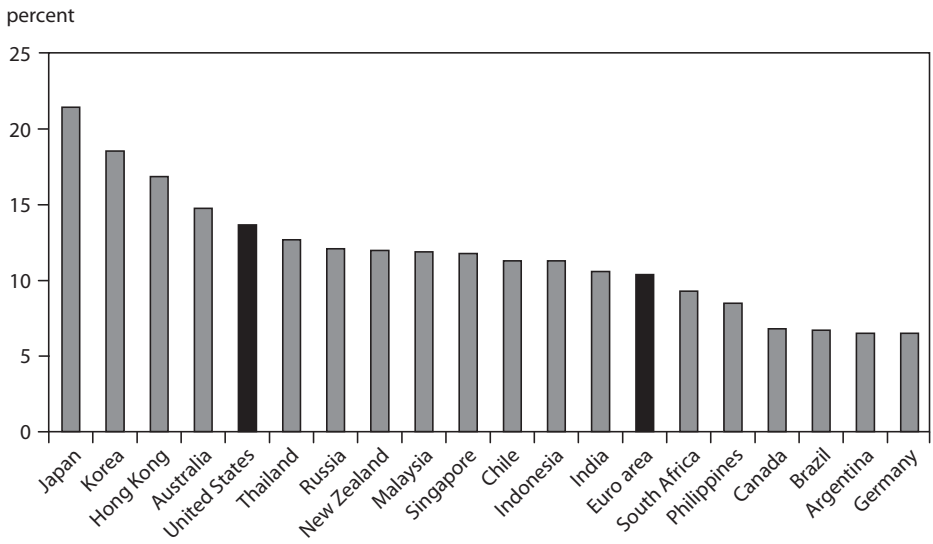
Source: International Monetary Fund, *Direction of Trade Statistics*, various years.

challenges that China's growth and development posed. Since then, perceptions have changed, and initial inattention has started to be corrected, but European interest in and concern about China remain strikingly less intense than the US fascination with it.

However, this asymmetry in perceptions is not supported by numbers. In 2006 EU exports to China exceeded those of the United States by 45 percent and its imports from China were only 23 percent lower than those of the United States. Its trade deficit is certainly lower, but it trails that of the United States by only about two years (figure 7.C4). The euro area is in a very similar situation. As a consequence, European policymakers have started to indicate that they could soon lose patience. As Trade Commissioner Peter Mandelson said in November, "the number that preoccupies Europe these days is $20 million. Because that is how fast the EU-China trade deficit is growing every single hour. Fast enough to catch up with the US-China trade deficit in the next year or so."[2]

2. Europe and the US: Confronting Global Challenges, speech at the Carnegie Endowment for International Peace, Washington, November 8, 2007.

Figure 7.C5 China's weight in effective exchange rates
(based on 2002–04 trade)



Source: Bank for International Settlements.

The transatlantic difference does not become wider when competition in third markets is accounted for, such as by using Bank of International Settlements measures of effective exchange rates (EERs): China's weight in the euro area's EER is only somewhat lower that its weight in the US EER (figure 7.C5). Clearly, no number supports the view that the intensity of US economic relations with China is of a different order of magnitude than those of the European Union or euro area.

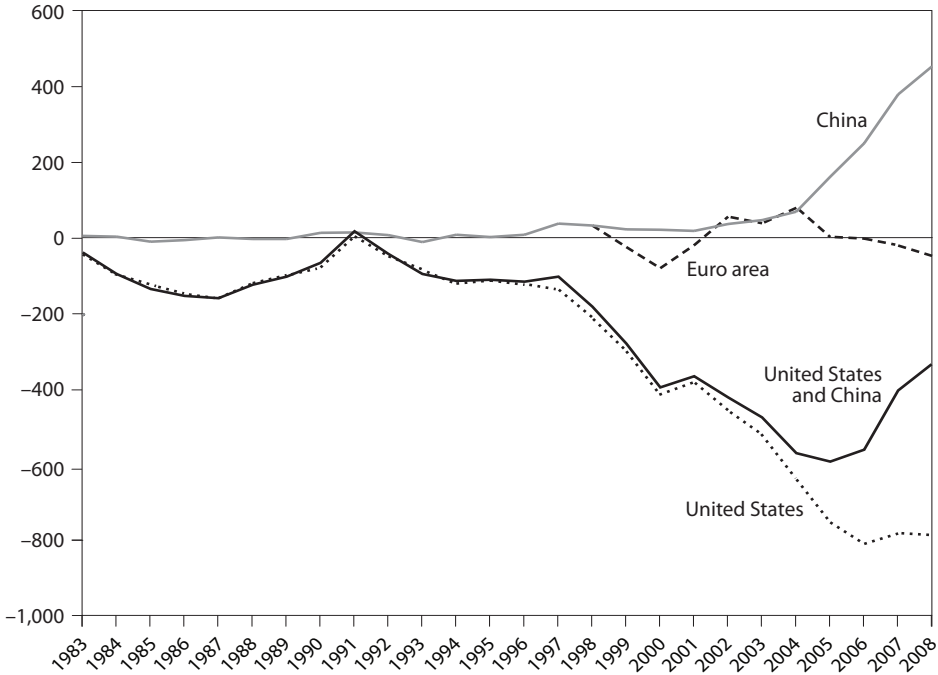
Second View: The Dollar-Renminbi Exchange Rate Is a Bilateral Issue

The second potential explanation for Europe's relative detachment from the renminbi issue is that the European currencies are in a floating exchange rate regime against the dollar. Thus, while the renminbi-dollar exchange rate is not market determined, the exchange rate of European currencies against the renminbi is indirectly market determined. This asymmetry is indisputable.

What the asymmetry may imply can be best understood by imagining the United States and China as partners in a de facto currency union. Accordingly, it should not be the US or Chinese current account balance that

Figure 7.C6 Current account balances, 1983–2008

billions of US dollars



Sources: International Monetary Fund, Balance of Payments Statistics; International Monetary Fund, *World Economic Outlook*.

matters but rather the aggregate US-China current account balance or that of a wider dollar zone, in the same way that what matters for the exchange rate of the euro is neither the Spanish deficit nor the German surplus but the aggregate balance, which is close to equilibrium. The aggregate US-China balance, while still far from equilibrium, has improved somewhat in recent times and is set to improve further in 2008 (figure 7.C6).[3] Also, the bilateral trade balance of the euro area regarding the United States and China combined is very close to zero.

The trade balance figures suggest that the dollar peg of the renminbi and its undervaluation might result in the euro being stronger against the dollar and weaker against the renminbi than would be the case if the renminbi were to float, with no clear consequences in effective terms. This type of reasoning is consistent with the revived Bretton Woods approach of Doo-

3. Forecasts for 2007 and 2008 are from the IMF, based on the conventional assumption of stable exchange rates throughout the forecast period.

ley, Folkerts-Landau, and Garber (2003), who emphasise that emerging countries have entered a stable fixed exchange rate arrangement with the dollar; it may also have underpinned the view frequently held in the early 2000s that the euro had no stake in global adjustment because it was itself close to equilibrium in effective terms.

For this view to be justified, however, the United States and China would have to form a true monetary union or to be expected eventually to create one. In that case, market participants could and actually would be wholly indifferent to the two countries' individual balances. But because they do not expect the peg to last forever, they still regard each country's intertemporal budget constraints as meaningful and, accordingly, monitor their national current accounts and net foreign asset positions.

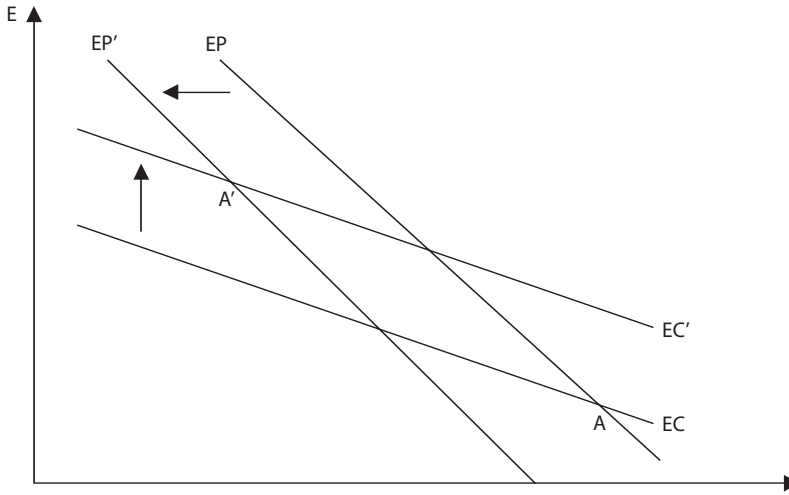
If the US current account matters, rather than the current account of a wider aggregate comprising China, then it follows that a renminbi undervaluation has strong consequences for the euro-dollar exchange rate. For a given equilibrium exchange rate of the US currency, the more the renminbi is undervalued, the more the euro needs to appreciate in bilateral and effective terms. This type of reasoning underpins most evaluations of equilibrium exchange rates, including those of the International Monetary Fund (IMF 2006). Such evaluations generally conclude that, although the effective exchange rate of the US dollar was above equilibrium in 2007, there was no need for the euro to appreciate further in effective terms (Ahearne et al. 2007).

Following this line of reasoning, the Europeans should have every interest in pushing for an appreciation of the renminbi because such a move would reduce the upward pressure on their own currency and the risk of it becoming clearly overvalued in effective terms, at significant macroeconomic cost. It would also reduce its required appreciation against the US dollar (Ahearne et al. 2007), and to the extent that the Europeans are sensitive to the dollar exchange rate because the United States is their direct competitor in certain industries, most notably aerospace, the latter is something they should be sensitive to.

Third View: The Alternatives Are Worse

The third reason for Europe's caution regarding the reform of the Chinese exchange rate regime may be an aversion to the risk of unintended adverse consequences. Better the devil you know than the devil you do not. Europeans might fear that a Chinese move toward a more flexible exchange rate regime would result in an appreciation of the euro as China diversifies its reserves away from US dollar assets and, at least partially, into European currencies. The reasoning here starts from the financial account rather than the current account, resulting in the opposite conclusion. Thus, there seems to be an inconsistency between the so-called trade

Figure 7.C7 Effects of a renminbi float on the euro-dollar exchange rate



E = exchange rate of the dollar vis-à-vis the euro
F = holdings of dollar assets by European residents
EP = portfolio balance schedule
EC = current account balance schedule
A to A′ = appreciation of the dollar against the euro

view and the so-called financial account view of Europe's relationship to the renminbi issue.

The model of Blanchard, Giavazzi, and Sa (2005) helps to clarify the reason for the inconsistency, as it encompasses both views. It can be summarized in two long-term relations between the exchange rate (E)[4] and the external debt (F) of the United States, represented by current account balance (EC) and a portfolio balance (EP) schedules (figure 7.C7). Both slope downward: In the steady state, a higher debt implies a more devalued exchange rate, resulting in a larger trade surplus, which allows for servicing of the debt. Higher debt also implies that nonresidents hold more dollar assets, which they are inclined to do if a lower dollar makes those assets cheaper.[5]

Suppose now that E represents the exchange rate of the dollar against the euro and that F represents the holdings of dollar assets by European residents. A Chinese move to a floating exchange rate regime means two things: first, an appreciation of the renminbi resulting in an outward shift of the EC curve (because for a given level of debt, the same US current account balance can be achieved with a higher bilateral euro-dollar exchange rate); and second, the removal of a marginal buyer of US dollar assets, which moves the EP curve inward (because for a given level of debt,

4. A rise in E represents an appreciation.

5. Returns on dollar and nondollar assets are supposed to be identical.

the dollar needs to depreciate as Europeans have to hold more of it in their portfolios). In the long run, the result of the two moves is unambiguously an appreciation of the dollar against the euro (a move from A to A′ in figure 7.C7).

In the short term, however, the dynamics are likely to imply a depreciation of the US dollar against the euro (see Blanchard, Giavazzi, and Sa 2005), as for a given level of debt and US current account deficit, an end to Chinese intervention implies a lower demand for dollar-denominated assets, which implies a further depreciation of the US currency.

The issue for the Europeans is therefore one of time preference. The renminbi peg on the dollar has the advantage of avoiding too sharp a depreciation of the US currency in the short run, but it also contributes to the buildup of US external debt and thus to an eventually lower dollar in the long run.

Fourth View: The Europeans Are Divided

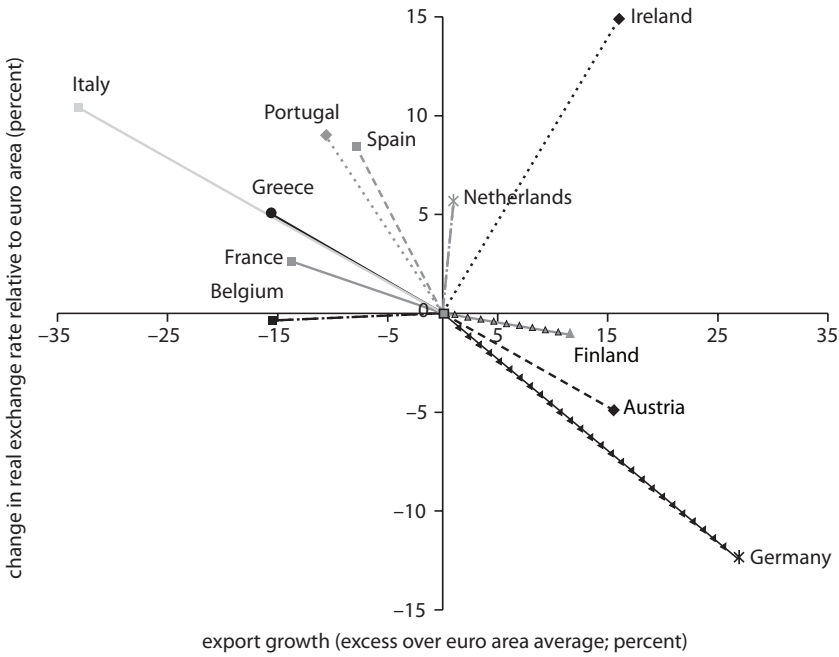
A factor often mentioned to explain why the Europeans have difficulty defining a stance on the Chinese exchange rate is that they are internally divided. This is both true and unconvincing.

Certainly the Europeans hold different views. In autumn 2007 German Finance Minister Peer Steinbrück notoriously claimed "love"[6] for the strong euro at the same time that French President Nicolas Sarkozy was lamenting its detrimental effects on the aerospace industry. At the root of this divergence are strongly divergent performances in world trade, the determinants of which can be found in structural factors and the evolution of the real exchange rate of the participating countries against their partners in the euro zone since the start of the monetary union.

Figure 7.C8 illustrates those diverging trends. For each of the euro-area member countries, the X-axis plots the deviation since 1999 of the real exchange rate from the euro area average, and the Y-axis plots the deviation of exports from the euro area average. Countries in the southeast quadrant, most notably Germany, have experienced real depreciation and an improvement in their relative export performance. Countries in the northwest quadrant, especially Italy, Portugal, and Spain, have experienced the opposite development. France also belongs to this category. Ireland has experienced both a sharp real appreciation and a structural improvement in its relative export performance. The extent of divergence over a rather short time span is striking. These developments have taken policymakers by surprise, contributing to an explanation for why national ministers have different views on the exchange rate of the euro.

6. Declaration on July 9, 2007 at the Eurogroup meeting: "I am not worried about a strong euro—I love a strong euro."

Figure 7.C8 Real exchange rate and export performance divergence within euro area, cumulative change between 1999 and 2006



Source: Bruegel calculation based on Eurostat and DG ECFIN (European Commission).

Other reasons why the Europeans react differently have to do with the wide dispersion of geographical and sectoral trade patterns, resulting in different sensitivity to exchange rate changes.

However, the Europeans are no less divided on trade matters—largely for the same reasons—but they nevertheless have a common trade policy that makes the European Union one of the few key players in international trade negotiations. Divergence within can explain external paralysis only if governance mechanisms are too weak to ensure that a common stance is defined and implemented. After all, US states also have strongly divergent interests regarding the appropriate level of the exchange rate, yet the federal government can define its stance and communicate it. At any rate, the straightforward tone adopted in official declarations since autumn 2007—"We want an end to a managed currency in China," as Mandelson said that November[7]—indicates that divisions do not hamper common positions any more.

7. "Europe and the US: Confronting Global Challenges," speech at the Carnegie Endowment for International Peace, Washington, November 8, 2007.

Fifth View: The Euro Area Does Not Have an Exchange Rate Policy

This leads to the examination of a fifth potential factor behind the Europeans' lack of assertiveness on the renminbi issue: that they do not have a proper exchange rate policy. The treaty provisions for exchange rate matters are notoriously complex and ambiguous, as they result from a compromise between German and French views (Henning 2007). The issue here is one of vertical division of labor between the European Union or the euro area, which logically has competence on exchange rate matters, and the member states, which participate individually in the G-7, Group of 20, and the IMF. It is also one of horizontal division of labor between the ECB and the Eurogroup, not to mention the European Commission. Both insiders (Bini Smaghi 2006) and observers (Ahearne and Eichengreen 2007) have assessed those arrangements as a drag on the definition and effective expression of common views on international monetary and financial matters. Such arrangements certainly make it difficult to decide who sets the objective (the Eurogroup or the ECB?), who speaks (de facto everybody), and who acts (often nobody). The fact that trade policy is an EU-27 competence, while exchange rate matters are dealt with by the 15-member-strong euro area, and structural reforms are primarily a national competence further complicates the issue.

Defining a stance and a strategy on the renminbi was bound to entail entering unexplored territory. The arrangements for exchange rate policy enshrined in the Maastricht Treaty had been drafted with a view to deciding how to intervene on exchange markets, manage target zones, or enter into formal agreements with third countries, not anticipating the delicate issues of financial diplomacy raised in any dialogue with Chinese authorities. By nature, a conversation about the renminbi has to include both the Eurogroup, because only governments speak to governments, and the central bank, because of its extensive responsibility on exchange rate matters. Against the background of controversies about the monetary stance of the ECB, such a conversation is also bound to be regarded as a test of the central bank's effective independence. All these factors may have contributed to delaying Europe's response to the renminbi issue.

However, the communiqué of October 2007 and the decision to send a mission to Beijing indicate that the complexity of internal arrangements is not an insurmountable impediment to expressing views any more. It probably signals the end of Europe's long-standing benign neglect toward the renminbi.

Conclusion

There is no convincing reason for the Europeans to be more indifferent than are Americans regarding the Chinese exchange rate policy. Of all the

possible explanations we have examined—that China matters less for Europe than it does for the United States, that the exchange rate of the renminbi is a bilateral issue, that alternatives to the dollar peg can only be worse, that the Europeans are divided, and that they do not have a proper exchange rate policy—none provides a compelling motive for indifference.

What remains as a hypothesis to explain the difference between US and EU attitudes is probably that the Europeans are slower to react to external developments. The absence of significant external deficit, doubts about which policy stance is desirable, internal disagreements, an untested governance of exchange-rate relations, and a habit of following US leadership may have all contributed to a slow European response. That said, the Europeans have recently woken up to the issue as the euro has appreciated quickly against both the dollar and the renminbi, and they can be expected to adopt an increasingly active stance on China's exchange rate policy.

References

Ahearne, Alan, William R. Cline, Kyung Tae Lee, Yung Chul Park, Jean Pisani-Ferry, and John Williamson. 2007. *Global Imbalances: Time for Action.* Bruegel Policy Brief 2007/02 (March). Brussels: Bruegel.

Ahearne, Alan, and Barry Eichengreen. 2007. External Monetary and Financial Policy: A Review and a Proposal. In *Fragmented Power: Europe and the Global Economy,* ed. André Sapir. Brussels: Bruegel.

Bini Smaghi, Lorenzo. 2006. Powerless Europe: Why is the Euro Area Still a Political Dwarf? *International Finance* 9, no. 2: 1–19.

Blanchard, Olivier, Francesco Giavazzi, and Filippa Sa. 2005. The US Current Account and the Dollar. *Brookings Papers on Economic Activity 2005,* no. 1: 1–66.

Dooley, Michael, David Folkerts-Landau, and Peter Garber. 2003. *An Essay on the Reinvented Bretton-Woods System.* NBER Working Paper 9971 (September). Cambridge, MA: National Bureau of Economic Research.

Henning, Randall. 2007. Organizing Foreign Exchange Intervention in the Euro Area. *Journal of Common Market Studies* 45, no. 2: 315–42.

IMF (International Monetary Fund). 2006. Methodology for CGER Exchange Rate Assessments. Washington. Photocopy (November 8).