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A Currency Basket for East Asia, Not Just China

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China recently announced that it is adopting a basket of currencies as the peg for its exchange rate instead of the US dollar. This announcement raises questions of how such a system works, whether other East Asian countries would be advised to follow China in adopting a basket numeraire,[1] and whether it would be advantageous to these countries if they were all to adopt the same basket. This brief answers these questions.

The first section of the brief outlines the concept of the numeraire as a basket of currencies and discusses the (distinctly limited) ways in which policy needs to change when the numeraire consists of such a basket rather than a single currency. The second section discusses which countries might usefully choose to adopt a basket numeraire. This section is followed by a discussion of the factors that should influence the composition of the basket, and then an analysis of the benefits and costs of adopting a common basket for all the East Asian countries rather than each of these countries having its own basket. Then there is a description of the various regimes in which a basket numeraire might be employed: It is argued inter alia that an intermediate exchange rate regime with a basket peg would constitute a useful transitional device pending adoption of either full floating or monetary union, even if in the end it was not a permanent feature of the monetary landscape. The final section considers the objections to a basket numeraire.

The analysis throughout is on East Asian use of a basket of currencies as the numeraire. Barry Eichengreen (2005) has discussed a somewhat different proposal: the creation of a parallel currency, whose value would be defined as a basket of the East Asian currencies, for use in East Asia.[2] He points out that this would be similar to the road previously pursued in Europe, which created a European parallel currency (first the ECU, subsequently the euro) after it had adopted floating exchange rates against the rest of the world. Since European countries had abandoned systematic attempts to manage their currencies against the outside world, there would have been little role for a basket of the sort discussed here. Of course, floating meant that there was no institutional constraint that prevented European exchange rates collectively drifting into misalignments against third currencies like the dollar, although devotees of floating exchange rates doubted this would occur (which did not prevent it from happening in spades).

Note that there would be nothing to preclude a group of countries that had adopted a basket of outside currencies as their numeraire from also creating a basket of their own currencies, to form, for example, an embryonic regional money as suggested by Eichengreen. Nor is there anything to prevent a basket whose purpose is to stabilize exchange rates (rather than to form an

1. The numeraire is the unit in terms of which a currency's value is measured. A particular case is a fixed, or "pegged" currency, where the currency is fixed in terms of some other unit, typically some other currency but on a number of occasions a basket of currencies. (A floating currency may also have a numeraire when the float is managed with reference to its value in terms of a single currency or a basket.)

2. A parallel currency is a currency that, as the name would suggest, circulates in parallel to the national currency and is also officially endorsed in some way.

embryonic regional money) from including both external and regional currencies. Indeed, we shall subsequently compare the merits of baskets that contain both types of currencies with a basket that contains just extraregional currencies.

THE CONCEPT OF A BASKET NUMERAIRE

Single-currency pegs are simple and familiar. Some currency—say, for the sake of concreteness, the Chinese renminbi—has a declared or de facto central rate in terms of some international currency like the US dollar (as the renminbi did when this brief was drafted). The central bank undertakes to hold the market exchange rate in a band, within some margin of the central rate, by means of intervention.[3] If the dollar appreciates or depreciates against most other currencies, then China has to ensure that its exchange rate against the dollar remains constant (except to the extent that it moves within the band), so that the renminbi also appreciates or depreciates against most other currencies along with the dollar (subject to the same qualification).

A basket peg replaces the obligation to hold the exchange rate within a fixed margin of the peg currency by an obligation to hold it within a fixed margin of a constant nominal value of a basket of currencies. Let us suppose, to be concrete (while taking an example that might be reasonably realistic), that China adopted a basket of currencies consisting of 40 percent of the dollar, 30 percent of the yen, and 30 percent of the euro as its peg.[4] Until July 21, 2005, China was using the dollar as a peg and also doing all its intervention and, it is believed, holding most of its reserves in dollars. What is the effect of adoption of the basket (a) in terms of its intervention and reserve-holding policies and (b) in terms of the impact of a 10 percent appreciation of the yen and the euro vis-à-vis the dollar?

Many people are surprised to learn that there need be no impact whatsoever on which currency is used to conduct intervention or on how the country holds its reserves. The only difference made by the switch from a dollar peg to a basket peg is that the dollar value of the intervention points will change when the dollar changes in terms of the other currencies in the basket. But if the dollar is the most convenient currency with which to intervene, then it is sensible to continue to conduct intervention in dollars: There is no necessity at all to start intervening in a basket of currencies.[5] It is also possible to continue holding reserves entirely in the form of dollars. This would of course imply that the domestic-currency value of reserves would vary when the dollar's value changes in terms of the other currencies in the basket. If the Chinese authorities dislike that, they can either diversify their reserve holdings so that they hold reserves in the same proportions as in the basket to which they are pegging, or they can take out appropriate cover in the forward market.[6] They may do either, or they may do nothing, but in any event they can operate a basket peg.

After its 2.1 percent revaluation and adoption of a band of +/– 0.3 percent, and with unchanged dollar/euro and dollar/yen exchange rates, China initially committed to intervene to prevent appreciation of the renminbi to less than 8.0869 yuan per dollar, or to prevent depreciation of the renminbi to more than 8.1353 yuan to the dollar (+/– 0.3 percent around its central rate of 8.1111 yuan to the dollar). What would be the impact of a 10 percent appreciation of the yen and the euro relative to the dollar? Since the yen and euro constitute collectively 60 percent of the basket, this appreciation will require the authorities to increase their dollar intervention

There would be no difficulty, let alone mystery, in adopting and operating a basket peg.

limits by 6 percent. After appreciation of the yen and euro, the People's Bank of China would have to prevent an appreciation above 7.6292 yuan per dollar and prevent depreciation below 7.6748 yuan per dollar. The band would still be +/– 0.3 percent around the central rate, which would be the same in terms of the basket of currencies, but that rate would now amount to 7.6520 yuan per dollar.

Table 1 shows some figures for the impact of changes in the dollar/euro and yen/dollar rates on the central rate of the renminbi. A 10 percent appreciation of either the euro or

3. The width of the band is defined as twice that margin.

4. At the exchange rates prevailing on the day this was first written, of $1 = ¥105.6 = € 0.776, this would imply that a basket with a value of $1 would consist of $0.40, ¥ 31.7, and € 0.233. (China has not in fact published the composition of its basket, so I don't claim this represents the actual Chinese basket. Indeed, the Chinese have indicated that their basket contains more than three currencies.)

5. For confirmation of this view from someone who was intimately concerned with operating a basket peg (in Iceland), see Gudmundsson (2005). Since the existence of a basket peg does not imply a need to intervene against third currencies, it also need not limit the deviations of cross-rates from the previous day's central rates. The Chinese commitment to limit such deviations to 1.5 percent is unwise because it could oblige them to attempt to defend broken cross-rates.

6. Gudmundsson (2005) asserts that many central banks use a minimum variance analysis to determine the composition of their reserves and that they will usually select their reserves from a subset of the currencies that enter their basket (those with high liquidity, etc.). The vehicle (intervention) currency will typically receive a greater weight than in the currency basket precisely because of its liquidity.

Table 1: Impact on dollar parity of renminbi under a basket peg

	Appreciation of euro	Appreciation of yen	Appreciation of euro and yen
+ 10 percent	7.875	7.875	7.652
No change	8.111	8.111	8.111
–10 percent	8.354	8.354	8.598

Source: Author's calculations on the assumption that the basket consists 40 percent of the dollar, 30 percent of the euro, and 30 percent of the yen.

the yen in terms of the dollar would decrease the renminbi's dollar central rate to 7.875, while if they both appreciated simultaneously by 10 percent, the central rate would move to 7.652. Conversely, a depreciation of either the euro or the yen in terms of the dollar would increase the renminbi/dollar central rate (with identical effects because they both have a 30 percent weight in the basket), and a simultaneous increase in both would have twice the effect. Since the dollar may appreciate rather than depreciate in terms of the euro and yen, a shift of the renminbi to a basket valuation is not a substitute for an upfront revaluation: It might lead to a subsequent depreciation rather than an appreciation of the renminbi against the dollar.

It is not difficult to obtain instantaneous market quotations of exchange rates for the major currencies. These can be fed into a computer, which can give a figure of the implied dollar intervention points in real time. The central bank's market operators will know that they have an obligation to prevent the market exchange rate from varying outside those limits. There is no difficulty, let alone mystery, in adopting and operating a basket peg. The contention that used to be advanced—that market operators (who are accustomed to dealing in large volumes of far more complex derivative instruments) would be unable to comprehend the system—was, shall we say, far-fetched.

As pointed out earlier, a basket numeraire is more general than the concept of a basket peg. It includes the possibility that the country will have a fixed peg, but it also allows the possibility of a managed floating exchange rate, where the management is motivated by a desire to limit misalignments in terms of the numeraire.[7] A country with a managed floating exchange rate and a numeraire consisting of a basket of currencies would regard its currency as strong or weak in relation to whether its value was above or below some norm (its central rate) defined in terms of the basket of currencies. Alternatively, if the country worries about whether its currency is strengthening or weakening, it will look at whether its currency is gaining or losing value in terms of the basket of currencies.

The analysis in this brief presupposes a constant new central rate, as if China had fixed a new, constant central rate in terms of the basket on July 2, 2005. In fact, China reserved the right—which it already had, though it had gone unused for a decade—to change the central rate by up to 0.3 percent on any day. It remains to be seen whether this right is actively used in the coming months. First indications are that the Chinese authorities do not intend to use this flexibility to engineer an additional, gradual appreciation, but many observers believe that the logic of events will ultimately convince them that such appreciation is in China's interest.

COUNTRIES IN EAST ASIA THAT MIGHT ADOPT A BASKET NUMERAIRE

The example used in the previous section concerned China, but there are a number of other countries in East Asia that might also benefit by adopting a basket numeraire. These are largely among the signatories of the Chiang-Mai Initiative. The obvious candidates are the five long-standing large members of the Association of Southeast Asian Nations (ASEAN)—Indonesia,[8] Malaysia, the Philippines, Singapore,[9] and Thailand; the three signatories of Chiang-Mai from Northeast Asia—China, Korea, and Japan; plus perhaps the distinct currency areas that are part of Greater China—Hong Kong and Taiwan.[10] Perhaps the recent members of ASEAN

7. One could also express the value of an unmanaged floating exchange rate in terms of a numeraire, but if there is no management, this is a mathematical exercise of no policy consequence, except insofar as it might increase awareness of events.

8. However, in a previous study I concluded that Indonesia's trade pattern made it a less compelling candidate for using the same basket than other countries of the region (Williamson 1999).

9. Brunei pegs its currency rigidly to the Singapore dollar, so it would be included indirectly if Singapore adopted a common basket as its numeraire.

10. I ignore the political problem this might pose.

Table 2: Direction of trade of East Asian economies, 2004 (percent)

Country	United States	Japan	European Union	Non-US Western Hemisphere	Rest of non-Japan East Asia[c]	Rest of world[d]
China						
Exports	22.8	12.4	18.1	4.6	30.1	12.1
Imports	7.7	16.1	12.4	4.8	39.4	19.5
Total	15.2	14.3	15.3	4.7	34.8	15.8
Hong Kong						
Exports	17.0	5.3	14.0	2.7	55.3	5.8
Imports	5.3	12.1	8.0	2.0	67.6	4.9
Total	11.1	8.7	11.0	2.3	61.5	5.3
Indonesia						
Exports	13.5	21.8	14.3	2.1	35.6	12.7
Imports	5.7	19.3	12.1	2.5	43.3	17.1
Total	9.6	20.5	13.2	2.3	39.4	14.9
South Korea						
Exports	17.8	8.3	13.8	6.3	41.4	12.5
Imports	12.7	21.6	10.8	3.4	28.8	22.7
Total	15.3	14.9	12.3	4.8	35.1	17.6
Malaysia						
Exports	18.8	10.1	12.6	1.8	44.6	12.2
Imports	14.6	16.1	12.1	1.6	47.4	8.1
Total	16.7	13.1	12.3	1.7	46.0	10.2
Philippines						
Exports	17.5	15.8	15.5	1.9	46.6	2.8
Imports	16.0	20.6	8.8	1.8	42.1	10.8
Total	16.7	18.2	12.1	1.8	44.3	6.8
Singapore						
Exports	13.0	6.4	14.5	2.1	51.9	12.1
Imports	12.7	11.7	13.5	1.4	45.2	15.5
Total	12.9	9.1	14.0	1.7	48.5	13.8
Taiwan[a]						
Exports	18.0	8.3	11.3	n.a.	48.2	n.a.
Imports	13.2	25.6	9.9	n.a.	30.1	n.a.
Total	15.6	17.0	10.6	n.a.	39.2	n.a.
Thailand						
Exports	15.9	13.9	14.7	2.6	38.8	14.1
Imports	7.6	23.6	9.9	2.3	34.4	22.2
Total	11.8	18.7	12.3	2.5	36.6	18.2
Weighted average[b]						
Exports	18.3	11.3	14.9	4.1	40.3	11.1
Imports	9.5	15.9	10.6	3.5	43.5	16.9
Total	13.9	13.6	12.7	3.8	41.9	14.0

(table continues next page)

Table 2 *(continued)*

Country	United States	Japan	European Union	Non-US Western Hemisphere	Rest of non-Japan East Asia[c]	Rest of world[d]
Japan						
Exports	22.7	n.a.	15.8	5.4	47.6	8.5
Imports	14.0	n.a.	12.7	4.6	44.6	24.1
Total	18.4	n.a.	14.3	5.0	46.1	16.3
India						
Exports	18.4	3.5	22.6	3.4	22.9	29.3
Imports	7.0	3.5	23.1	5.2	24.2	37.0
Total	12.7	3.5	22.9	4.3	23.5	33.1

a. Data for Taiwan are from *Statistical Year Book of the Republic of China*, 2004, tables 122 and 123. Due to incomplete country detail, non-US Western Hemisphere cannot be calculated, and rest of world is left out as a result. Incomplete country detail further means that Taiwan's imports from the EU consist only of imports from Belgium, France, Germany, Italy, Netherlands, Sweden, Switzerland (included because it has an FTA with the EU), and Britain. Taiwan's exports to the EU consist only of exports to Belgium, France, Germany, Ireland, Italy, Netherlands, Spain, Sweden, and Britain. All data are for 2003.
b. For the weighted average, Taiwan has been excluded due to incomplete data. Due to inconsistent reporting by countries, weights do not add up to exactly 100 percent but have been deflated by the actual sum to yield a total of 100 percent.
c. Non-Japan East Asia is the aggregate in the International Monetary Fund DOTS database for "Developing Asia" (excluding only Japan), subtracting where applicable Afghanistan, Bangladesh, Bhutan, Sri Lanka, India, Maldives, Nepal, Pakistan, Palau, and Timor. As the aggregate does not equal the sum of individual countries, Taiwan is assumed to be included in aggregate, which in addition contains, where applicable, Brunei, Myanmar, Cambodia, China, Hong Kong, Indonesia, South Korea, Laos, Macao, Malaysia, Philippines, Singapore, Thailand, Vietnam, and Asia not elsewhere reported (nes).
d. Residual calculated as 1 minus other five categories.

Source: International Monetary Fund, *Direction of Trade Statistics*, May 2005.

(namely, Cambodia, Laos, Myanmar, and Vietnam) would be involved, too, but the present assessment is restricted to the more traditional candidates.

Table 2 shows the direction of trade of each of these economies in the most recent year for which data are available, 2004. It also shows the average direction of trade (weighting by country trade levels) of nine of the candidates listed above, but excludes Japan. Finally, since India is now sometimes grouped with the East Asian countries, its direction of trade is also shown.

All nine countries for which the trade data are averaged have strong intraregional trade relations, and all have fairly diversified extraregional trade. Intraregional trade is almost 35 percent in the case of China and in most other cases even higher. Extraregional trade is in most cases over 10 percent with each of the three main trading blocs. China is fairly typical in its trading pattern: True, it runs a deficit with the rest of non-Japan East Asia, but so (unsurprisingly, arithmetic being what it is) do about half the other countries of the region. The important asymmetries occur between exports and imports, where most of the countries export much more to than they import from the United States and, to a lesser extent, the European Union, while all countries import more from Japan than they export to it.[11] Japan and India are subject to the same patterns, except that India trades much less with East Asia (including Japan) than do any of the other countries under study.

These considerations make it reasonable to consider adopting a basket numeraire, or a common basket numeraire, for the nine economies of developing East Asia shown in the top portion of table 2. On grounds of trade composition, there seems no compelling reason to exclude Japan. The argument for not including Japan in the determination of a common East Asian basket numeraire is different. If

11. This is a striking example of triangular trade, which economists know to be a good thing, although politicians at their worst sometimes get excited about the bilateral imbalances it implies.

Japan used the basket numeraire, then the basket would of necessity exclude the Japanese yen. But if the yen continued to fluctuate as violently as it has in the past, this would mean that the other countries of East Asia would have significant variations in their effective exchange rates[12] even though they stabilized their rates in terms of the dollar-euro basket. What seems more prudent would be for Japan to use as numeraire a dollar-euro basket with weights proportionate to their weights in the East Asian basket. If and when Japan shows that it is capable of limiting the fluctuations of the yen in terms of that basket to a reasonable magnitude, then it would become a candidate for admission to the East Asian basket.

India's direction of trade is quite substantially different from that of East Asia (much more out of line with the regional norm than that of Indonesia), with a much more substantial volume of trade with Europe and markedly less with Japan and the rest of East Asia. This does not constitute an argument against India adopting a basket numeraire, but it does constitute a reason for eschewing a common basket numeraire. If India were to decide to use a basket numeraire, it should use its own basket, reflecting its own trade composition.

. . . adopting a common basket . . . would guarantee that no change in third-country exchange rates would disturb the trading relationships among the East Asian countries themselves.

THE COMPOSITION OF THE BASKET

An old literature, which I surveyed in 1982 (Williamson 1982), discusses the concept of the optimal peg. "Optimality" of its nature requires that one define the objective that is envisaged. It was generally agreed that in this context an optimal peg should minimize the macroeconomic disturbance caused to an economy by the shocks it encounters from the near-random fluctuations in the exchange rates of major currencies. Just what is implied by macroeconomic stability—stability in the relative price of traded goods, or stability of output—varied by author, but in either event it transpired that the optimal peg was that which kept the effective exchange rate constant.

A series of subsidiary questions concern whether weights in the effective exchange rate should be based on imports, exports, or total trade; whether to use trade weights or elasticity weights; whether weights should be based on the direction of trade or the currency of denomination; and whether to stabilize the nominal or real effective exchange rate. I concluded that the arguments favored using total trade weights rather than giving different treatment to exports or imports; using elasticity weights if these are available (which they usually won't be, but trade weights should be a reasonable proxy); using the direction of trade rather than the currency of denomination; and relying on the choice of peg just to stabilize the nominal exchange rate. It also appears that large baskets add extra complexity without having much impact on the behavior of the basket; if country B does not contribute more than 5 percent of country A's trade, then its currency probably ought not appear in country A's basket.

Applying this analysis to East Asia, one would look to each country using as numeraire a basket of the currencies of those countries with which it conducts more than, say, 5 percent of its total trade, with weights equal to the value of trade with that country divided by the value of total trade with all the countries that will make up the basket. Table 3 shows those countries with which each of the nine countries conducts 5 percent or more of its total trade. It can be seen that this would involve in each case the three major trading powers (the United States, the eurozone, and Japan) and a number of other East Asian countries that would vary between one country (just China, in the case of Hong Kong) and four countries (in the cases of Indonesia and the Philippines). The Chinese renminbi would be in all the baskets, except, of course, that of China itself.

One issue of principle is obvious: Should the basket consist of all major trading partners, or should it be restricted to extraregional trading partners? If one wishes all countries to use a common basket, then only the latter is feasible. One cannot use as numeraire a common basket that includes countries within the region, for the basic reason that, for example, the Chinese basket would of necessity exclude the renminbi while the baskets of other East Asian countries would all include it. Thus we may consider two options: one in which each of the nine countries uses a basket that includes other East Asian currencies and is based on its own trade pattern and one in which it uses a common basket of

12. The effective exchange rate is a country's average, trade-weighted exchange rate. It is the effective rate—not the the bilateral rate against a particular currency such as the dollar—that has macroeconomic implications for output, inflation, and employment.

Table 3: Major bilateral trade partners (5 percent or more weight for a currency area)**, 2004**

East Asian country	Partner country	Total trade weights (percent)
China	Eurozone	13
	Japan	14
	United States	16
	Hong Kong	12
	South Korea	7
Hong Kong	Eurozone	8
	Japan	9
	United States	11
	China	44
Indonesia	Eurozone	11
	Japan	21
	United States	10
	China	9
	Malaysia	6
	Singapore	8
	South Korea	5
Malaysia	Eurozone	10
	Japan	13
	United States	17
	China	8
	Hong Kong	5
	Singapore	13
Philippines	Eurozone	10
	Japan	18
	United States	17
	China	9
	Hong Kong	7
	Malaysia	5
	Singapore	8
Singapore	Eurozone	11
	Japan	9
	United States	13
	China	9
	Malaysia	15
South Korea	Eurozone	10
	Japan	15
	United States	15
	China	18
Taiwan[a]	Eurozone	9
	Japan	16
	United States	16
	China	12
	Hong Kong	11
Thailand	Eurozone	9
	Japan	19
	United States	12
	China	8
	Malaysia	6
	Singapore	6

a. Taiwan data for 2003 are from the *Statistical Yearbook of the Republic of China 2004*. Eurozone includes only Belgium, France, Germany, Ireland, Italy, Netherlands, and Spain.

Source: International Monetary Fund, *Direction of Trade Statistics*, May 2005.

extraregional currencies (in practice dollar, euro, and yen). The alternative sets of baskets are shown in table 4.[13] The next section considers what criteria would be appropriate in choosing between these two options.

INDIVIDUAL-COUNTRY BASKETS OR A COMMON BASKET?

There are several obvious advantages in adopting a common basket rather than each country having a tailor-made basket based on its individual trade pattern. In particular, this would guarantee that no change in third-country exchange rates would disturb the trading relationships among the East Asian countries themselves. Such insulation of the trading relationships of the region from outside disturbances is the major objective of adopting a common peg. Ronald McKinnon (2002), for example, has often emphasized this as one of the major benefits of the region having a common dollar peg, but it is an advantage that could equally well be gained by adopting a common basket peg. But there are other advantages, too. It would, for example, also create a propitious environment for further advances toward regional monetary integration, should that be the desired goal, since it would build in a presumption of stability among the participating currencies. And it would make it easier to arrive at a Plaza-type agreement, under which all the countries of developing East Asia adjusted their currency values simultaneously.

Against such advantages, the question that inevitably arises is whether use of a common basket would provide adequate stability of the participating countries' effective exchange rates.[14] Kawai and Takagi (undated) established that stability of the real effective exchange rate is important for macroeconomic stability in the East Asian countries. One way of seeking to answer the question of the implications of a common basket for stability of the effective exchange rates is to simulate how exchange rates would have moved in East Asia under the alternative policies, using the extraregional exchange rate changes of some past period. For this purpose I have taken the behavior of exchange rates over the five-year period 2000–04. Table 5 shows a measure of exchange rate volatility for each of the countries—namely, the standard error of its end-month nominal effective exchange rate, under (a) actual historical experience, (b) a peg to an individual-country basket as shown in table 4, and (c) a peg to a common basket as shown in table 4. Note that in order to make such simulations it is necessary to assume that countries have a rigid peg to their basket so that the exchange rates of participating currencies were always equal to their central rates. In a wide band or reference rate system, one would clearly not expect this to be true, as actual changes will not be pinned down by the system. But there is no reason to expect that a change in third-currency exchange rates will have a systematic effect in altering the position of the currency relative to its central rate, so this seems a neutral assumption. It was also assumed that all the other Western Hemisphere currencies move with the dollar and that 40 percent of the rest of the world currencies move with the dollar, 40 percent move with the euro, and 20 percent move with the yen.

In three of the nine cases (Singapore, South Korea, and Thailand), an individual-country peg would actually have led to more instability than the historical experience. Conceivably, this effect is an artifact arising from the measurement of the effective exchange rate in column 2, purely on the basis of the major trading partners rather than the more comprehensive base the IMF uses. However, an economic explanation might also lie behind this paradoxical finding: perhaps the dollar peg (in some cases) or near-peg (in others) had the McKinnon effect of reducing intraregional exchange rate instability. However, it can also be seen that in seven of the nine cases a common basket peg would actually have reduced instability compared both with actual historical experience and with the individual-country basket. (The differences in the other two cases, Hong Kong and Singapore, are trivial.) The common basket peg would have produced the McKinnon effect by eliminating intraregional instability, as well as reducing the effective instability against the outside world. In other words, there is no trade-off between the advantage of an individual-country basket in stabilizing the effective exchange rate and the common basket in stabilizing trade relations within East Asia: The common basket is so useful in the latter capacity that it outperforms individual-country

13. The "own baskets" shown in the first column are based on all the trade partners (by currency area) with which each of the countries involved does more than 5 percent of its total trade, as shown in table 3. The trade weights shown in that table were summed, and then each was multiplied by the inverse of the sum to derive the trade weights. The "common basket" shown in column 2 was derived from the weighted average (total trade) line of table 2. The non-US Western Hemisphere was added to the dollar, the rest of non-Japan East Asia was disregarded, and the rest of world column was added 40 percent to the dollar, 40 percent to the euro, and 20 percent to the yen. The resulting shares for dollar, euro, and yen were then transformed into weights that added to 100 percent.

14. It may also be contended that the rest of the world might prefer individual-country baskets because they could result in a larger dollar appreciation by East Asia in response to an appreciation by euro and yen. However, this is erroneous; it is true that individual-country baskets would lead to a series of secondary appreciations in response to the initial appreciations of other East Asian countries, but these secondary appreciations merely offset the smaller initial appreciation in response to the euro and yen appreciations that would result from their collective weight in the basket being in the range of 28 to 53 percent rather than 60 percent.

Table 4: Basket weights for nine East Asian currencies (percent)

Country	Own basket		Common basket	
China	Dollar	20.9	Dollar	40.2
	Euro	22.9	Euro	31.6
	Yen	25.1	Yen	28.2
	HK dollar	19.3		
	Won	11.8		
Hong Kong	Dollar	11.4	Dollar	40.2
	Euro	12.3	Euro	31.6
	Yen	15.4	Yen	28.2
	RMB	61.0		
Indonesia	Dollar	16.1	Dollar	40.2
	Euro	29.7	Euro	31.6
	Yen	14.9	Yen	28.2
	RMB	12.8		
	MYR	7.9		
	Sing. dollar	11.6		
	Won	7.0		
Malaysia	Dollar	15.0	Dollar	40.2
	Euro	19.5	Euro	31.6
	Yen	25.8	Yen	28.2
	RMB	12.4		
	HK dollar	6.9		
	Sing. dollar	20.3		
Philippines	Dollar	13.8	Dollar	40.2
	Euro	24.5	Euro	31.6
	Yen	22.5	Yen	28.2
	RMB	12.6		
	HK dollar	9.1		
	MYR	6.6		
	Sing. dollar	10.9		
Singapore	Dollar	19.0	Dollar	40.2
	Euro	15.7	Euro	31.6
	Yen	22.5	Yen	28.2
	RMB	16.2		
	MYR	26.7		
South Korea	Dollar	17.6	Dollar	40.2
	Euro	25.4	Euro	31.6
	Yen	26.6	Yen	28.2
	RMB	30.4		
Taiwan	Dollar	14.1	Dollar	40.2
	Euro	25.5	Euro	31.6
	Yen	24.5	Yen	28.2
	RMB	18.6		
	HK dollar	17.2		
Thailand	Dollar	16.0	Dollar	40.2
	Euro	31.5	Euro	31.6
	Yen	19.9	Yen	28.2
	RMB	13.4		
	MYR	9.5		
	Sing. dollar	9.8		

Source: International Monetary Fund, *Direction of Trade Statistics*, May 2005.

Table 5: Standard deviations of East Asian nominal effective exchange rates under different pegs, 2000–04 (percent)

Country	Actual historical experience[a]	Individual-country peg[b]	Common basket peg[c]
China	5.21	4.38	2.32
Hong Kong	4.18	2.03	2.43
Indonesia[a]	6.35	6.32	3.55
Malaysia	5.29	3.44	1.89
Philippines	9.55	12.91	5.08
Singapore	2.54	1.78	2.54
South Korea[b]	3.32	3.96	1.78
Taiwan[a, d]	4.74	4.72	1.80
Thailand[b]	2.92	3.55	1.89

a. Standard deviations of period-end monthly nominal effective exchange rates (NEER) are from International Monetary Fund, *International Financial Statistics* (May 2005). Data for Indonesia and Taiwan end-month are from Thomson Datastream Series JPMIDNB (Indonesia) and NTDTWER (Taiwan). Data for South Korea and Thailand end-month real effective exchange rates are from the Citibank CTERI database (January 2000 = 100).
b. NEER with individual-country pegs are calculated as follows: The weights shown in table 4, column 1, were used to calculate what the dollar exchange rate (the local currency unit, or LCU, divided by the dollar) would have been. Actual exchange rates against the dollar were used to derive other hypothetical rates. These were combined with the trade weights to estimate a hypothetical time path for the NEER. The standard deviation of that path is reported in the table. All bilateral exchange rates are set at January 2000 = 100.
c. Common basket pegs are calculated using 1999 as the base year ($1 = €0.9363 and $1 = ¥ 113.91), with the weights in table 4, column 2, yielding a dollar, euro, and yen composition of ¢40.2, €0.296, and ¥32.1, respectively. From these, the LCU/$, €, and ¥ implied by the basket composition and dollar/euro/yen exchange rates are calculated. These are weighted by the individual-country trade weights to yield the NEERs with the common basket peg. All bilaterial exchange rates are set at January 2000 = 100.
d. Due to insufficient trade data detail for Taiwan (table 2), the trade for non-US Western Hemisphere and rest of the world have not been distributed for Taiwan. Trade weights are based only on trade with the United States, European Union, and Japan.

baskets in stabilizing effective exchange rates, too.

In China's case, an individual-country basket would have somewhat reduced the instability of the effective exchange rate, demonstrating the wisdom of China's recent decision to adopt a basket peg. This is worth noting because Chinese officials often defended China's policy of fixing the bilateral exchange rate as one calculated to preserve exchange rate stability. This is so only in the most superficial sense: The actual consequence was far more instability in what matters from the standpoint of economic policy: the effective exchange rate. However, a common basket would reduce the instability of China's effective exchange rate even more. In the two other cases where there were fixed dollar pegs, Hong Kong and Malaysia, an individual basket peg would also have reduced effective instability. A common basket would still have delivered significantly greater stability of the effective exchange rate in Malaysia, but marginally less stability in Hong Kong. A common basket thus seems to be of substantial potential benefit in most countries because it stabilizes exchange rates among the East Asian countries, which are now important trading partners, and it does this without the danger of destabilizing the effective exchange rate, which arises from them all using a common dollar peg.

A BASKET NUMERAIRE AND REGIME CHOICE

One of the advantages of a basket numeraire is that it is consistent with a wide range of alternative exchange rate systems. It could be used where a country has an old-fashioned narrow-margins peg, like China still has, or where a country has a firmer commitment to an unchanged rate than this, as Hong Kong does.[15] And it could also be used where a country already has an intermediate regime, with wide margins and the possi-

15. Of course, this would mean committing to keeping the value of the Hong Kong dollar unchanged in terms of the basket of currencies rather than of the US dollar.

bility of small changes in the central rate, like Singapore.

A basket numeraire could even be used where a country has a managed float, provided that it is willing to have its intervention disciplined by its (basket) central rate. One possibility is for the agreed central rate to act as a "reference rate," meaning that the country accepts an obligation not to intervene (or adopt other policies intended to have the same effect) in a way that would tend to push the market rate away from the reference rate. Thus the country would float in the sense that it accepted no obligation to defend a particular rate, but it would undertake not to try to override the market when market forces were tending to push the rate toward the reference rate. Such a basket reference rate implies something other than freely floating exchange rates on the American model, with no thought of where the equilibrium rate is or whether the market rate is anywhere near a plausible concept of equilibrium, but it does not necessarily imply very much more than this.

This wide range of circumstances under which a basket numeraire could be used is an advantage in a region like East Asia, where there is not as yet a high degree of monetary cohesion. Different countries at present operate very different policies, and it is likely that they will continue to want to operate in significantly different ways. However, if they all used similar baskets, or even more clearly, if they all based their policies on a common basket, they would not need to worry about the danger of being undercut by their neighbors as an incidental by-product of changes in the exchange rates of third parties, as they do at the moment. If the dollar-euro rate changed, they would all react similarly to the shock, and thus none of them need consider the possibility of additional reactions or worry that different reactions of their neighbors would undermine their competitiveness.

General adoption of a basket numeraire in the region would also obviate the danger of a recurrence of the experience of the past three years, in which the rest of the world perceives the region to have "ridden the dollar down" and thus gained competitiveness against most non-Asian, nondollar currencies as a by-product of the weakness of the dollar. This is why adoption of a basket peg is often viewed outside the region as one aspect of a move to limited flexibility.

However, adoption of a basket numeraire would do nothing to offset the competitiveness gain that the region has already registered as a result of past dollar depreciation. Neutralizing this gain will require some additional action to strengthen real exchange rates, either nominal appreciation or inflation. Thus the possibility of adopting a basket does not eliminate the need for an initiative on the part of countries like China. On the contrary, one can argue that, in order to give a fair chance to a system of limited flexibility, the system must start off at a point at which the market believes it to be free of a big disequilibrium inherited from the past, which would be possible in the near future only with an upfront revaluation greater than 2.1 percent.

Another major element of a system of limited flexibility would be wide margins. George Halm's influential paper (1965) suggested that "wide" might be +/– 6 percent, but after the 1993 exchange rate mechanism (ERM) crisis, the Europeans went to +/– 15 percent, so there is ample scope for selecting a figure to suit local tastes while remaining within the limits for which there is a precedent.

The final element of a system of limited flexibility would be a willingness to change the central rate relatively readily in response to pressures like balance of payments disequilibria or differential inflation. The quid pro quo is that each individual change in the central rate should be small.[16] The European ERM worked on this basis for the first eight years of its existence and was quite successful in limiting intraregional exchange rate volatility.

. . . a common basket would reduce the instability of China's effective exchange rate even more.

If East Asian currencies that are currently pegged within narrow margins moved to a system of limited flexibility, then they could evolve to some other system at a future date without foreclosing their options prematurely (i.e., now). One possibility is that they would in due course be candidates for a monetary union, on the European model. In that event they might wish to create a parallel currency at an early date, as suggested by Eichengreen (2005), and the value of that parallel currency probably ought to be defined as a basket exclusively of East Asian currencies. There is absolutely no contradiction between creating such a basket to determine the value of a parallel currency and using currency baskets that contain—perhaps exclusively—extraregional currencies in order to peg or otherwise manage the exchange rates of regional currencies. These are two quite independent decisions, and either could be taken with or without the other.

16. "Small" in this context means less than the width of the band so that potential speculators who are certain that they know the date and size of a forthcoming central rate change still cannot be sure of making a profit by speculation.

Another possibility is that East Asian countries could move to floating exchange rates. Most countries that have adopted floating exchange rates did so because a crisis forced it on them. However, several of the countries that have started to float without a costly crisis as part of the learning process—such as Chile, Israel, and Poland—used an intermediate regime to "learn to float." Or perhaps the outcome will differ, with the large countries of northeast Asia—China and Korea—going to floating rates like Japan's, while ASEAN eventually adopts a common currency. The point is that there is no need to peer into the future in order to adopt a policy that makes sense now. A common basket numeraire is compatible with evolution in either direction.

OBJECTIONS TO A BASKET NUMERAIRE

Some of the most common objections to a basket numeraire have already been discussed, and dismissed, in the preceding pages. For example, there is a view that a basket of currencies would be so formidably complicated that ordinary people, or even participants in the financial markets, would have difficulty in fathoming what was going on. This is not so: Many people may not understand what is involved when they have no need to understand it, and calculations can be messy, but the basic concepts are not difficult, and people will quickly learn once they have an incentive to comprehend. Again, a lot of people seem to think that a basket peg implies that intervention would be conducted in a basket of currencies, but this is false, as pointed out above. Similarly, some seem to believe that adoption of a basket numeraire would necessarily imply a switch to holding reserves in a basket of currencies. This is again wrong: There is a case for making such a switch on grounds of reserve diversification, but it is essentially independent of whether a country stabilizes its exchange rate in terms of a single currency or a basket of currencies (or whether it floats).

Perhaps the most serious objection to a basket numeraire is that it would leave traders in the participating countries without a mechanism for ascertaining the local-currency value of trade contracts that will mature only in the future. An important advantage of a traditional peg to one of the main international currencies, like the dollar, is that traders can expect that a contract denominated in that currency will normally have an unchanged value in terms of the local currency when the contract matures. But denomination in some international currency cannot give them similar assurance when their currency is no longer pegged to any international currency—for example, when it floats or when it is pegged to a basket. Thus when a country floats (or pegs to a basket) it is well advised to ensure the existence (or at least rapid development) of a forward market between the local currency and an international currency—in practice, the US dollar. This appears to be one of the main elements of China's loudly proclaimed preparations for floating.

If each country pegged to a tailor-made basket, then each country would need its own forward market. Establishing such markets is unlikely to be difficult in the case of the larger countries, but it may be problematic for the smaller ones. An advantage of a common basket peg is that only one forward market is needed to provide cover equivalent to that provided to participating countries by a single-currency peg with a reasonably narrow band. Essentially, the small countries could piggyback on the forward market that would be developed by the largest one, since all the exchange rates would move roughly in parallel relative to the dollar.

CONCLUDING REMARKS

Although a number of the East Asian currencies are now nominally floating, the extensive intervention they have undertaken in recent years suggests that this float is very far from free floating. These countries intervene, it has been suggested, mainly because of a collective action problem: They fear losing competitiveness vis-à-vis their regional peers, and they each had been reacting by pegging (many of them informally) to the dollar. This was a suboptimal reaction, as this brief has shown. A common basket numeraire would be better for everyone.

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