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**Is Asia an Optimum Currency Area? Can It Become One?
Regional, Global and Historical Perspectives on Asian Monetary Relations¹**

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This conference is one sign of increased interest in collective or cooperative exchange rate arrangements for East Asian countries. A more concrete indication is the announcement in November 1995 by the Hong Kong Monetary Authority and the central banks of Malaysia, Indonesia and Thailand of repurchase agreements designed to provide one another with exchange market support.² In February of this year Hong Kong and Singapore agreed to intervene for the account of the Bank of Japan to help the latter manage the dollar/yen rate. In March the Bank of Japan joined the network of repurchase arrangements (as had Singapore and the Philippines sometime earlier). Against this background it is not surprising that the apostles of European monetary integration have chosen this time to bring their message to Asia.

¹ Prepared for the CEPII/AMUE/KDI conference on exchange rate arrangements for East Asian countries. We thank Erwin Cho-Woods for research assistance. The views expressed are not necessarily those of the International Monetary Fund or any other organization with which the authors are associated.

² Australia is also allied with this group. Under these agreements, the central banks can borrow dollars from one another against the collateral of U.S. government securities without having to liquidate the latter, enabling them to augment their liquidity on short notice and intervene more heavily.

The importance of these arrangements should not be exaggerated. The network of repurchase agreements is best thought of as a regional analog to the General Arrangements to Borrow, which gave G-10 countries quick access to international reserves but did not otherwise limit their pursuit of independent monetary and fiscal policies. Support under the Asian arrangements is limited to the value of the U.S. treasury securities of the borrowing governments. One can imagine how these resources might prove insufficient to repel an all-out attack on an Asian currency comparable to the Mexican or ERM crises, and how this might give rise to arguments for collective support. And to make collective support politically palatable, its proponents might be led to advocate surveillance, conditionality and a common peg.³

The case for a common peg has been made by Williamson (1996). Williamson argues that the stewards of nine East Asian currencies (China, Hong Kong, Indonesia, Korea, Malaysia, the Philippines, Singapore, Taiwan, and Thailand -- henceforth in this paper the EA9) should adopt a common basket peg, surrounded by fluctuation bands of plus-and-minus ten per cent. In his words, these countries comprise "a natural monetary grouping like the EMS countries are widely agreed to be." The counter-argument is that East Asia is less of an optimum currency area than Western Europe. Economic and financial conditions differ significantly across Asian economies. Some financial markets in the region are very open, while others remain highly regulated and restricted (contrast Hong Kong and China). Some East Asian countries compete with Japan in international markets, and their currencies follow the yen up and down; others which import from Japan but compete less with it prefer to depreciate their currencies when the yen strengthens to

³ This internal logic is clearly evident in Fraser (1995).

offset the recessionary impact of higher import prices.⁴ Thus, different countries with different economic structures will prefer different monetary-cum-exchange-rate responses to common shocks like a change in the yen/dollar rate.

As experience with the European Monetary System and the drive for European Monetary Union have shown, political solidarity can overcome deviations from the ideal of the optimum currency area.⁵ But in Europe, the requisite links and institutions have grown up only as a result of a unique process of political and monetary integration that has unfolded over many decades. In East Asia, in contrast, institutionalization is weak. Countries lack the political links and traditions needed to support a concerted exchange rate policy. Historical experience suggests that more than a few years will be needed to develop them.

We argue these points in a paper in four sections. Section 1 provides brief background on Asian exchange rate arrangements. Section 2 adopts a regional perspective, asking how East Asia compares with other regions on standard optimum-currency-area grounds. Section 3 adopts an historical perspective, showing how much time has been required historically to develop the political institutions and solidarity needed to support a collective peg. Section 4 concludes.

1. How Have Asian Exchange Rate Arrangements Evolved?

Table 1 shows the exchange rate arrangements reported by the IMF for the EA9 and the

⁴ As argued by Kwan (1994), pp.6-7.

⁵ The same can of course be said of the history of actual monetary unions like the United States.

⁶ Historically, countries without strong political links have succeeded in operating common pegs. But this was possible in the past because limits on international capital mobility made it possible to operate such pegs unilaterally. In today's world of high capital mobility and immense international capital markets, robust pegs require collective support, and collective support to be incentive compatible requires political links. We return to this point below.

world as a whole. (Because the number of East Asians is limited, the panel for all IMF members breaks country totals into percentages, while that for East Asia reports numbers of countries in each category. We have added information for Taiwan, which is not an IMF member, from independent sources.) Clearly, the trend toward greater exchange rate flexibility evident in the world as a whole is also apparent in Asia.

Current Asian currency arrangements span the range from fixed to floating rates. The Hong Kong dollar is pegged to the U.S. dollar under a currency board. The remaining eight currencies are also managed. Generally speaking, the intensity of their management has generally declined over time, a trend associated with rising exchange rate variability. The frequency of management ranges from Indonesia, where the authorities intervene continuously, to Malaysia, where intervention is episodic although when it occurs it is often quite substantial. The Korean authorities have announced a gradual widening of their intervention margins with the intention of moving to a free float by the end of the decade. China's currency is difficult to place on this continuum, since it remains inconvertible; it appears that the renminbi is held within a wide fluctuation band against the dollar and significantly realigned from time to time.

Frankel and Wei (1994) attempt to disentangle the weight of different reference currencies in the Asian authorities' implicit basket pegs by regressing each currency against the U.S. dollar and the Japanese yen. They find that even in the 1990s most currency baskets have been dominated by the dollar. In the early 1990s the only currencies to significantly weight the yen

⁷ See Leiderman and Bufman (1995).

⁸ Some regressions include also the deutschmark, the Australia dollar, and the New Zealand dollar. All regressions include a constant term.

were the Hong Kong dollar, the Singapore dollar, the Malaysian ringgit and the Thai baht. And even in those countries, the weight on the dollar relative to the yen was more than four (in Singapore), more than five (in the case of Malaysia), and more than 6 (in the case of Thailand). In Hong Kong, with its dollar-based currency board, the yen has no explanatory power. The weight on the yen has in many cases increased over time (most clearly in the cases of the Indonesian rupiah, the Thai baht, and the new Taiwan dollar). While the yen is increasingly used to invoice intra-Asian trade, and while the Asian countries have slowly shifted the composition of their external debt away from the dollar and toward the yen, the dollar retains its dominant role in East Asian exchange rate management.

Limiting his analysis to periods when the Japanese currency fluctuated sharply against the U.S. dollar, Takagi (1996) attaches higher weights to the yen. While his findings for Indonesia, the Philippines, and Thailand do not differ much from those of Frankel and Wei, he emphasizes the tendency for the Korean won and the Malaysian ringgit to follow a depreciating yen (suggesting that these countries regard Japan as a close competitor in international markets), and for the Singapore dollar to closely follow an appreciating yen (as the authorities ward off imported inflation). These asymmetric responses, reflecting different national priorities attached to export competitiveness and price stability, would clearly complicate efforts to design a collective currency peg.

Benassy-Quere (1996) has analyzed the relative importance of the dollar and the yen in

⁹ For details see Tavlas and Ozeki (1992).

¹⁰ Differences in the weights attached to the arguments of governments' objective functions as an obstacle to monetary unification or collective pegging have not received much attention in the recent literature; see however Corden (1972).

Asian currency pegs by comparing the volatility of nominal exchange rates against the dollar with their volatility against the yen. Volatility against the dollar is uniformly lower than volatility against the yen, but the relative importance of the yen in Asian currency pegs (as reflected in the declining relative volatility of that currency) has grown between the second half of the 1980s and first half of the 1990s for Singapore, Malaysia, and the Philippines. The opposite is true for Indonesia, Korea and Thailand. Regression analysis similar to Frankel and Wei's suggests a role for the yen in basket pegs only in Malaysia, Thailand and Singapore.

One interpretation of these trends is that East Asia is paralleling the tendency toward greater exchange rate flexibility evident in other parts of the world. That tendency can be resisted only where governments are prepared to repress the domestic financial system and impose capital controls. In East Asia (and most especially Hong Kong and Singapore, which have set themselves up as international financial centers), the scope for such controls is limited. From this perspective, it is no coincidence that China, the one country in the region which retains very significant controls, is also the only one that holds its currency within bands that are realigned periodically. Given the infeasibility of controls, by this interpretation, East Asia is inevitably transiting toward greater exchange rate flexibility. Even Hong Kong, which has resisted greater flexibility to date, may have to contemplate it after the resumption of Chinese control in 1997.

Others might argue instead that East Asia is following in Europe's footsteps. Following

¹¹ In the mid-1970s, most Asian currencies were pegged to the dollar, with only Malaysia, Singapore and the Philippines not maintaining their exchange rates within narrow bands against the U.S. currency but devaluing repeatedly instead.

¹² Or move to monetary union, as in Europe.

¹³ Although some governments, like that of Singapore, have continued to limit capital inflows and outflows and their impact on the domestic economy by applying moral suasion to the banks. See Woo and Hirayama (1996).

the breakdown of Bretton Woods, European governments were torn between pegging to the dollar, the traditional anchor currency issued by what was still the world's leading commercial power, and pegging to their regional anchor, the German mark. In the short run they responded by allowing their currencies to fluctuate more widely. But with the passage of time, the costs of this strategy became clear. The growth of intra-European trade increased the costs of uncontrolled intra-European exchange rate variability. The authorities responded by institutionalizing a sequence of collective pegging arrangements, the Snake and the EMS.

One can imagine a similar response in Asia. Oscillations in the exchange rate linking the EA9's two principal trading partners, the U.S. and Japan, has led governments to move away from rigid dollar pegs. But with the growth of intra-Asian trade and finance, large fluctuations in intra-EA9 rates have grown increasingly uncomfortable. One can imagine that Asia, like Europe before it, will respond with the adoption of a common or collective peg.

Whether this scenario is desirable or feasible is the subject of the remainder of this paper.

2. Regional Perspectives

The obvious framework for analyzing the costs and benefits of a common peg is the theory of optimum currency areas. Indeed, the motivation for Mundell's (1961) seminal article was to ask whether there was any justification for greater exchange rate variability between Canada and the U.S. than between regions within the two countries. Subsequently, insights from this literature have been utilized to explain observed exchange rate variability across countries.

In a recent paper (Bayoumi and Eichengreen, 1996) we sought to operationalize optimum-

¹⁴ See for example Tower and Willet (1976) and Wickham (1985).

currency-area (OCA) theory and apply it to data for European countries. We related exchange rate variability to four country characteristics that OCA theory suggests increase or reduce the desirability of stable exchange rates and monetary unification. First, "asymmetric" output disturbances (affecting different countries differently), which we measure as the standard deviation of the change in the log of relative output in the two countries. Second, the dissimilarity of the composition of the exports of a pair of trade partners, also a proxy for asymmetric shocks. This variable should be particularly relevant for Asia, where, according to Kwan (1994) and Takagi (1996), the similarity of trade structures vis-a-vis Japan should be a powerful determinant of the weight countries attach to the yen in their basket pegs. (In particular, Kwan argues that the higher the share of manufactures in total exports, and hence the more similar a country's export structure with Japan's, the larger should be the weight on the yen in a basket peg.) Third, the importance of commercial links between each pair of countries, which we measure using data on bilateral trade. Fourth, economic size, since the costs of a common currency, in terms of macroeconomic policy independence foregone, should be balanced against the benefits, which will be greatest for small economies where there is least scope for utilizing a separate national currency in transactions. We measure this as the arithmetic average of (the log of) real GDP

¹⁵ To construct this variable we collected data on the shares of manufactured goods, food and minerals in total merchandise trade for each country. Manufactured goods are defined as the total of basic manufactures, chemicals, machines and transport equipment, miscellaneous manufactured goods, and other goods. Food is the sum of food and live animals, beverages and tobacco, and animal, vegetable oils and fats. Minerals amalgamate data on crude materials excluding fuel with mineral fuels, etc. The dissimilarity of the commodity composition of two countries' exports was then defined as the sum of the absolute values of the differences in each share (with higher values indicating less similarity in the composition of commodity exports between the two countries).

¹⁶ We compute the average value of exports to the partner country, scaled by GDP, for the two countries concerned.

¹⁷ That is, small countries should benefit the most from the unit of account, means of payment, and store of value services provided by a common currency.

in U.S. dollars of the two countries.

The estimating equation is therefore:

$$(1) \quad SD(e_{ij}) = a + \beta_1 SD(y_i - y_j) + \beta_2 DISSIM_{ij} + \beta_3 TRADE_{ij} + \beta_4 SIZE_{ij},$$

where $SD(e_{ij})$ is the standard deviation of the change in the logarithm of the end-year bilateral exchange rate between countries i and j , $SD(y_i - y_j)$ is the standard deviation of the difference in the logarithm of real output between i and j , $DISSIM_{ij}$ is the sum of the absolute differences in the shares of agricultural, mineral, and manufacturing trade in total merchandise trade, $TRADE_{ij}$ is the mean of the ratio of bilateral exports to domestic GDP for the two countries, and $SIZE_{ij}$ is the mean of the logarithm of the two GDPs measured in U.S. dollars. In each case, variables are measured as averages over the sample period.

We estimated this equation for Japan and its 19 leading trading partners over the period 1976-1995. This sample includes eight of the EA9 (we lack data for China). It includes the United States and Germany, the two countries in addition to Japan whose currencies feature in most proposals for EA9 pegs. The basic result is as follows (with t-statistics in parentheses):

$$\begin{aligned} SD(e_{ij}) = & -0.01 + 0.79 SD(y_i - y_j) + 0.01 DISSIM_{ij} - 0.34 TRADE_{ij} \\ & (0.27) (3.61) \quad (1.64) \quad (7.57) \\ & + 0.01 SIZE_{ij}, \\ & (5.24) \quad R^2 = 0.36 \quad S.E. = 0.028 \end{aligned}$$

¹⁸ The countries are Japan, Hong Kong, Korea, Singapore, Taiwan, Indonesia, Malaysia, the Philippines, Thailand, Australia, New Zealand, the United States, Canada, France, Germany, Italy, the United Kingdom, the Netherlands, Belgium and Spain.

The signs of all of the coefficients are as predicted, and three of the four differ significantly from zero at high levels of confidence. (The fourth, the measure of the dissimilarity in the composition of exports, approaches significance at the ten per cent level.) Countries that trade more heavily have more stable exchange rates, as do smaller economies, countries whose GDP's generally fluctuate together, and countries with a more similar composition of exports. Thus, the theory of optimum currency areas does a credible job of explaining the exchange rate policies of Japan's principal trading partners.

Next, we use the estimated coefficients and values of the independent variables in 1995 to predict the dependent variable. The predicted level of exchange rate variability can be thought of as an "OCA index," with smaller values suggesting that countries better approximate an optimum currency area. Table 2 suggests, not surprisingly, that the very small, very open economies of the region, Hong Kong and Singapore, would find it most appealing to peg to other East Asian countries. The cases where the value of the OCA index approaches Western European levels are

¹⁹ For comparison, our results for 20 OECD countries were as follows:

$$SD(e_{ij}) = -0.09 + 1.46 SD(y_i - y_j) + 2.24 DISSIM_{ij} - 0.05 TRADE_{ij} \\ (1.35) (6.95) \quad (3.61) \quad (2.77) \\ + 2.50 SIZE_{ij}, \\ (10.87) \quad R^2 = 0.51 \quad S.E.=0.027$$

²⁰ Benassy-Quere (1996) estimates a similar equation for the exchange rates of a sample of nine Asian and 12 non-Asian, non-OECD economies against the three key currencies (the dollar, yen and deutschmark). She too finds that trade structure, relative output movements and the intensity of bilateral trade links all have the expected signs (she does not include country size), but reports that only the coefficient on the first of the three explanatory variable differs significantly from zero at standard confidence levels. On this basis she concludes that the theory of optimum currency areas does not help to explain exchange rate behavior in Asia. While we obviously disagree with her conclusion, we would be interested to know whether her very different results are attributable to her inclusion of 12 non-Asian, non-OECD economies in the sample, her neglect of intra-Asian cross rates, her use of a different proxy for trade structure, or

Singapore-Malaysia, Singapore-Thailand, Singapore-Hong Kong, Singapore-Taiwan, and Hong Kong-Taiwan. These are the country pairs for which the argument for a common external peg is strongest. In contrast, the case for Indonesia, South Korea and the Philippines is weaker.

Furthermore, any attempt to encourage the adoption of a common peg by the first five East Asian countries would be complicated by the fact that Malaysia and Thailand have relatively little economic incentive to adopt the same external peg.

Then there is the question of what that common external peg should be. In our earlier paper on European exchange rate policy, we not only considered OCA indices for each pair of countries but also constructed these indices for each country vis-a-vis a common external anchor, Germany. The problem with applying this approach to Asia is that no single currency plausibly offers an attractive external peg. In Table 3 we therefore report values of the OCA index for each Asian country vis-a-vis Japan, the United States and Germany, and construct a basket peg, following Williamson (1996) by imposing weights of 0.3, 0.4., and 0.3 for the yen, dollar and deutschemark.

Table 3 suggests that a common basket peg with these weights works nearly as well as choosing between the yen, dollar or deutschemark countries in the sense that most of the figures in the column headed "basket" are only a little larger than the smallest of the three other columns.

The principal exceptions are Hong Kong and Singapore, both of which would clearly prefer to peg to the dollar. While Indonesia, Korea and Thailand might marginally prefer the yen, and

her omission of country-size effects.

²¹ For a nine-currency basket, Williamson (1996, Table 2) derives weights, based on the shares of imports and exports to the US, Japan and Western Europe for each country, of 0.381 for the dollar, 0.325 for the yen, and 0.293 for the deutschemark.

Malaysia, the Philippines and Taiwan might marginally prefer the dollar, a basket peg in fact does almost as well for all these countries.

The preceding analysis takes a reduced-form approach to operationalizing the theory of optimum currency areas. It employs simple proxies for the arguments of that theory. An alternative is to consider in more detail each of the factors pointed to by the theory. For example, in Bayoumi and Eichengreen (1994) we provide a detailed analysis of asymmetric disturbances, using the structural VAR methodology of Blanchard and Quah (1989). Analyzing time series for prices and output, we identify disturbances with temporary and permanent impacts on output, which we interpret as aggregate-demand and aggregate-supply shocks. Again, we discuss the cases of both Europe and Asia, since Europe provides an obvious metric for the Asian economies, the EU having opted to proceed with monetary union.

Asia compares well with Europe in terms of the magnitude of disturbances. Aggregate-demand disturbances were about twice as large in Europe as in Asia over the sample period 1972-89, confirming the impression of relatively good macroeconomic management in Asia. In contrast, there is little to choose between the continents in terms of the magnitude of aggregate-supply shocks (Table 4).

The demand shocks of Hong Kong, Indonesia, Malaysia, Singapore and Thailand are relatively highly correlated with one another (as shown in Table 5). The make-up of this grouping

²² The estimation period was 1963-1990 for the European economies and 1972-89 for Asia.

²³ That the entries for these countries are shaded indicated that the correlations differ significantly from zero at standard confidence levels.

is not surprising. Malaysia, Singapore and Thailand trade heavily with one another. With the possible exception of Singapore, they have all followed what Williamson calls "dollar-focused" exchange rate policies over the sample period. This reinforces the presumption that the correlation of demand disturbances reflects exchange-rate policy and should not be regarded as invariant with respect to the exchange rate regime.

From the perspective of policy options, the correlation of supply shocks is more informative, since it should be less sensitive to choice of exchange-rate arrangement. Table 6 reveals two groups of Asian countries among which aggregate-supply shocks are significantly correlated: Japan, Korea and Taiwan; and Hong Kong, Indonesia, Malaysia and Singapore. Again, the patterns are intuitive. Japan, Korea and Taiwan were among the first East Asian countries to industrialize, and they compete with one another in the American market. Industrialization began later in Indonesia, Malaysia, Hong Kong and Singapore. Compared to Korea and Taiwan, these countries import less from Japan (Kwan 1994).

Financial disturbances are an increasingly prevalent source of asymmetric shocks. They provide the strongest argument against a common peg. The argument is that Asia's emerging economies need exchange rate flexibility and monetary independence to cope with financial disturbances. A widely-held lesson of the Mexican crisis is that emerging markets with weak

²⁴ Goto and Hamada (1994), pp.367-368. These authors' calculations suggest, however, that Indonesia should be grouped with Taiwan, Korea and Japan if judged solely in terms of the intensity of bilateral trade.

²⁵ Even Singapore has kept its rate reasonably stable against the dollar.

²⁶ There were essentially no other significant correlations of supply shocks in the region, and no correlations between the two subgroups. Note also that the analyses of aggregate demand and supply disturbances both pick out what is essentially a common grouping.

banking systems and heavy dependence on foreign capital should not peg their exchange rates. When banks run into trouble, a government seeking to maintain an exchange rate peg will have limited ability to inject credit into the banking system; since currency traders know that the authorities will find themselves between a rock and a hard place, banking problems inevitably spill over into the foreign exchange market.

These problems are especially prevalent in emerging markets. The capacity for prudential supervision tends to be less than in advanced industrial countries. Even capital and reserve requirements stricter than those of the Basle Accords may not avert this danger, since emerging markets experience immense capital inflows and outflows, which tend to be intermediated by the banking system. In many developing countries, governments are reluctant to allow nonfinancial firms to fail, either because they hold a financial stake or because the firms in question have disproportionate political power; hence, the authorities will be disinclined to allow bank credit to contract when global interest rates rise or the banking system is otherwise forced to retrench. Governments in this situation, forced to choose between injecting credit into the banking system and defending the exchange rate, cannot credibly commit to the latter, and the markets, knowing this, have an incentive to run on their reserves.

Historically, banking problems have not been as pervasive in East Asia as other emerging markets. Banks in the region have been tightly regulated; their access to offshore funds has been

²⁷ See Sachs (1995), Calvo (1996) and Dooley (1996).

²⁸ Even countries with rigidly fixed exchange rates can, of course, give themselves some leeway to intervene on behalf of their banking systems. The swap arrangements referred to in the introduction to this paper are one source of policy flexibility. Another example is Argentina, which has established an the following arrangement with international banks. In return for an annual fee of 0.3 per cent of the total, the banks provide Argentina's central bank with up to \$5 billion in the event of a crisis. Any loan would be fully collateralized by dollar-denominated Argentina government securities, and the central bank would pay LIBOR plus 200 basis points on the loan.

strictly controlled. The question, as Dornbusch and Park (1996) put it, is whether Asian banking systems will acquire Latin American features as liberalization proceeds. There is already some evidence of this kind of instability, most recently in Thailand in 1996. Moody's has noted the appalling opaqueness of Thai banks' published balance sheets, illustrating the difficulty noted above of applying first-world standards of regulation and supervision to emerging markets. The revelation in parliamentary debate of the insolvency of the Bangkok Bank of Commerce (BBC), Thailand's ninth largest, led to a generalized run on deposits in the summer of this year. These events had a predictable impact on the foreign exchange market. When the government made clear that it was prepared to create the liquidity needed to bail out BBC, this contributed to a run on the baht. The IMF reportedly recommended that the government widen the band in which the currency is allowed to move against the dollar.

To summarize, problems of financial fragility, insofar as they impact different countries at different times, provide perhaps the strongest economic case against schemes for a common currency peg.

The other side of the OCA equation is speed of adjustment to shocks. Our own estimates (again from Bayoumi and Eichengreen 1994) suggest that adjustment in Asia is relatively fast. Almost all of the change in output and prices in response to a shock takes place in the first two years. (In Europe, by comparison, at most half of the change occurs in the first 24 months.) The fastest adjustment to supply shocks is (in descending order) in Japan, Hong Kong, Taiwan, Thailand and Indonesia, the slowest in the Philippines. These results would appear to be consistent with the general impression that labor markets are more flexible in East Asia than

²⁹ As reported in The Economist (10 August, 1996), p.57.

Western Europe.

Labor mobility is relatively high in Asia. Goto and Hamada (1994) note the extent of migration between the less- and more-developed East Asian economies and emphasize its responsiveness to changing economic conditions. The share of the labor force accounted for by foreign workers can be large. In Singapore, for example, workers from Malaysia, Thailand, Indonesia and the Philippines accounted for fully 10 per cent of employment in the 1980s. The elasticity of supply of Chinese workers to Hong Kong is notoriously high. Emigration has been as much as two per cent of the labor force of the sending countries. This is a high level of labor mobility by European standards, reflecting extensive experience with migration and the existence of networks of overseas Chinese.

Having considered the costs of a harmonized monetary policy, we turn now to the benefits. By European standards, the structural characteristics of the EA9 are consistent with relatively large savings in transactions costs from the adoption of a common currency peg. Several but not all of the economies in this group are relatively small. All are relatively open, some exceptionally so; the export/GDP ratio in 1993 ranged from 84 per cent in Singapore to 19 per cent in China. Intra-EA trade is high and rising. Goto and Hamada compute trade intensity indices, which normalize bilateral trade by the relative share of the countries in question in total world trade, eliminating size effects. Those indices, computed for 1990, show higher values for East Asia than for Western Europe. While there are a few instances -- Ireland and the UK, the Netherlands and Belgium-Luxembourg, Spain and Portugal, and Greece and Italy -- where intra-European trade is exceptionally intensive, a substantial number of bilateral links in East Asia are at least as intense: Japan-Korea, Japan-Indonesia, Japan-Thailand, Hong Kong-Taiwan, Singapore-

Malaysia, Singapore-Indonesia, Singapore-Thailand, and Malaysia-Thailand.

Cross-border investment is also extensive. Flows of DFI into Indonesia, Malaysia and Thailand, joined more recently by China, have been especially pronounced over the last decade. Japan has traditionally been the main source of direct foreign investment in the region, but its share of the estimated DFI stock of the EA9 has declined from 28 per cent in 1982 to 21 per cent in 1993. This reflects very different movements in the relative importance of Japanese investment in the NICs and ASEAN Four: Japan's share in the NICs rose from 24 to 32 per cent over the period, while its share in ASEAN fell from 30 to 22 per cent. By some estimates, the NICs themselves supply a larger share of the total stock of DFI in East Asia than either Japan or the United States, reflecting heavy investment by Singapore and Hong Kong in Indonesia, Malaysia and Thailand.

On standard optimum-currency-area grounds, then, the economies of East Asia would seem to be more or less as plausible candidates for internationally-harmonized monetary policies as the members of the European Union. While they do not satisfy all the standard OCA criteria, neither does Europe. Some countries in the region, notably those with smaller, more open economies, may find a collective peg more attractive than others, but the same is true in Europe. As in Europe, the problems created by remaining deviations could in principle be overcome by sufficient political solidarity. The next section asks whether this is a realistic prospect.

3. Historical Perspectives

³⁰ Specifically, we have identified cases where the value of the trade intensity index exceeds three.

³¹ Kohsaka (1996), Table 4.8.

In this section we consider whether the political preconditions exist in Asia for the successful operation of a collective currency peg. As the last section has shown, different countries will generally prefer different weights on the yen, dollar and deutschemark. A common peg will involve compromises and costs, just as the harmonization of monetary policies has involved compromises and costs in Europe. Side-payments and trade-offs across issue areas will be required to compensate the losers, and political means for providing them must be in place.

Moreover, establishing a common peg is easier than defending it. Successful defense may require collective support, and more support than is available under the existing network of repurchase arrangements presupposes surveillance and policy conditionality. A clear lesson of European experience is that strong-currency countries will be reluctant to support the exchange rates of their weak-currency counterparts without leverage over the latter's policies, for fear that the common monetary policy will be thrown off course and that their loans will not be paid back. The political preconditions for making that leverage effective should not be underestimated.

In Western Europe, the debate over monetary integration has gone hand in hand with discussions of political integration and the creation of a supranational entity empowered to override previously sovereign national governments. Efforts to create collective currency arrangements have entailed formal institutionalization, starting with the Treaty of Rome, an international treaty signed by six countries that cited exchange rates as a matter of "common concern," proceeding to the creation of the EMS Act of Agreement, and culminating with the Maastricht Treaty. At each stage, national governments delegated a growing range of powers to the collectivity and elaborated progressively more detailed governance structures. As Paul-Henri Spaak put it when discussing the creation of the EEC, "Those who drew up the Rome Treaty...did

not think of it as essentially economic; they thought of it as a stage on the way to political union."

The point should not be exaggerated: there has been resistance in Europe to the creation of supranational authority and the construction of institutional restraints on national policy every step of the way. Where the Werner Report, an early 1970s landmark on the road to EMU, saw the strong centralization of fiscal functions in the hands of the European Commission as a prerequisite, national governments refused to surrender their powers. Where some of the founders of the EMS anticipated the pooling of countries' international reserves and the creation of a European Monetary Fund to oversee their utilization, countries like Germany resisted this attempt to abrogate their monetary sovereignty. The debate over EMU, especially in Denmark and the UK, is very much a debate over whether or not to accept further compromises of national sovereignty. But the nature of the debate itself, and the profound transfer of national powers to the European Commission and the European Central Bank foreseen in the Maastricht Treaty, are themselves indicative of how far Europe's political dialogue has come.

Why did the political preconditions for this assignment of powers to a supranational entity and the extensive institutionalization of governance develop in Europe? One answer is the continent's unique socio-political history. Economic integration has a path-dependent character which can operate in strongly self-reinforcing ways. In Europe, initial conditions and chance events along the transition path have worked to strengthen integrationist tendencies to the point where the political preconditions for monetary union are in place. In Asia, in contrast, neither initial conditions nor subsequent events have been conducive to the development of the requisite political cohesion.

³² Cited in Urwin (1996), p.76.

Some may object that Europe has taken only 50 years to develop the necessary support for monetary integration; after all, as recently as 1944 Germany and France were at war. But this is to overlook the deeper roots of the integrationist agenda. Proponents of European integration trace their antecedents back to Pierre Dubois, a jurist and diplomat in the French and English courts, who in 1306 proposed a permanent assemblage of European princes working to secure a lasting peace. The English Quaker William Penn proposed a European parliament and a supranational European government in 1693. Jeremy Bentham advocated a European assembly, Jean-Jacques Rousseau a European federation, Henri Saint-Simon a European monarch and parliament. By the middle of the 19th century intellectuals like Victor Hugo spoke of a United States of Europe. We could go on, but the point is clear: in Europe, the ideal of integration is intimately connected with the liberal and democratic principles of the Enlightenment and has roots in centuries of history.

Interwar developments further suggest that post-World War II initiatives were an incomplete break with the past. Belgium and Luxembourg established an economic union in 1922. The Low Countries and Scandinavia agreed to harmonize their tariffs as part of the 1930 Oslo Convention. The Pan-European Union, founded by the Austria Count Richard Coudenhove-Kalergi in 1923, lobbied for a European federation and attracted the support of Aristide Briand and Edouard Herriot, future premiers of France. In 1924, Herriot, then French prime minister, spoke out for the creation of a United States of Europe. In 1929, Briand proposed to the League of Nations the creation of a European confederation. Konrad Adenauer and Georges Pompidou were also members of the Pan-European Union.

One can thus say that by 1945 the intellectual preconditions for European integration were

in place. It was only necessary to add to this combustible mix the spark of the Marshall Plan. Under the terms of U.S. aid, the recipient governments were required to decide among themselves on the distribution of the transfer. In response, they established the organization that quickly evolved into the OEEC and OECD. The U.S. provided political cover and financial resources for the European Payments Union. It supported the creation of the European Coal and Steel Community, an entity singled out by its historian as the first true instance of "supranationality" (Gillingham, 1992). The point is that these concrete economic steps took place in an environment with important political preconditions in place.

Katzenstein (1996) makes similar points, albeit in different terms. He speaks of powers and norms in the international system and of the character of domestic state structures as determining the scope for regional integration. In discussing international power and norms, he singles out U.S. foreign policy for establishing the principle of multilateralism in Europe after 1945. By domestic state structures conducive to integration, he means states which recognize the legitimacy of international law and institutions, features of European politics that can ultimately be traced back to the Enlightenment.

East Asia, in contrast, lacks the political solidarity and cohesion to institutionalize a durable system of collective currency pegs. Recall that post-World War II resistance to a strong institutional structure for European integration was overcome partly by the intervention of an outside agent, the United States, which provided financial and political incentives to pursue this route. In East Asia, in contrast, the post-WWII period saw a very different geopolitical dynamics. The U.S. guaranteed the security of Japan, South Korea and other countries bilaterally; SEATO (the Southeast Asia Treaty Organization, an attempt to create a regional analog to NATO) did

little except on paper. There was no Asian Marshall Plan to impel the governments of the region to establish collective governance.

Nor does East Asia's history feature a Jean Monet or Paul-Henri Spaak to speak out for regional integration. Before World War I, many countries were under the dominance of colonial powers which provided little scope for self-determination. The military governments that emerged after the war discouraged cross-border rapprochement for fear that this would undermine their domestic political control. Some go so far as to argue that most East Asian governments are actively hostile to autonomous international bureaucratic structures. Then there is the fact that ideological distance between China's communist government and market-oriented regimes elsewhere in East Asia is so great (in contrast to Western Europe, where after World War II variants of the social market economy were embraced by virtually all the members of the present-day European Union). It is hard to believe that Beijing would permit other East Asian countries to mandate a change in Chinese macroeconomic policy as a quid pro quo for intervention in support of the renminbi, or that other countries would entrust Beijing with this authority in return for its support.

At a deeper level, East Asia lacks a Benthamite/Rousseauian/Saint-Simonian heritage of collective democratic governance through integration. As Katzenstein puts it, "the notion of unified sovereignty...central to the conception of continental European states, does not capture Asian political realities." As in China today, the regions resist the attempts of the center to exercise its political through the operation of political and legal institutions. The idea of a

³³ See Crone (1993).

³⁴ Katzenstein (1996), p.147.

centralized state with a monopoly of force that regiments its citizens through the superimposition of a common set of institutions is a European conception, not an Asian one. Asian civil society is structured by ritual, ceremony and economic networks more than by military force or the rule of law. The notion of strong, cohesive nation-states in the Western mold being foreign to Asia, it is unrealistic to speak of pooling national sovereignties which don't exist.

Consequently, integrationist initiatives in Asia have proceeded not through the creation of strong supranational institutions but by establishing loose networks of cooperation. It is revealing that APEC, which is essentially just a consultative forum, has succeeded where initiatives to create smaller, more cohesive Asian analogues to the EEC or EFTA have not.

This predisposition to rely on loose networks rather than formal institutions is clearly evident in the monetary domain. Where the EU has created the Committee of Central Bank Governors, the Monetary Committee, the European Commission, the European Monetary Institute and, prospectively, the European Central Bank, Asia has created CEANZA, under whose auspices 17 countries hold biennial central bank training courses, CEACEN, a grouping with ten members which holds annual meetings of governors and also provides training courses, and EMEAP, an 11 country grouping whose functions are limited to information sharing. Even the advocates of a new, encompassing regional institution suggest as a model the BIS rather than the EU's Monetary Committee or EMI.

It is not surprising, then, that the most recent international monetary initiative in East Asia takes the form of a network of repurchase arrangements limited in geographical and financial coverage. Only seven of the EA9 participate, and credit lines are limited to those which can be fully collateralized by the borrowing country's holdings of U.S. treasury securities. Practical

experience as well as political analysis thus creates doubts about whether the EA9 would agree to establish a common currency peg encompassing the entire region and to the creation of an institutional framework for extensive operations in support of those pegs.

4. Conclusion

We have analyzed the economic and political prospects for monetary integration in East Asia. We find that the region satisfies the standard optimum-currency-area criteria for the adoption of a common monetary policy about as well as Western Europe. Its small, open economies would benefit from the reduction in uncertainty that would result from the creation of a durable common peg. Intra-Asian trade and investment have reached relatively high levels. Adjustment to shocks is fast, and supply and demand disturbances are small and symmetric by European standards.

The strongest argument against even a limited sacrifice of monetary autonomy is that domestic financial systems are less well developed than in Western Europe. The legacy of financial repression and capital controls continues to limit financial depth, as emphasized by Dornbusch and Park (1996). Currency pegs, whether unilateral or collective, are risky where governments are required to intervene in support of their banking systems. Proponents of collective pegging may object that this freedom would not be sacrificed if the fluctuation of currencies was limited to, say, plus or minus ten per cent, if the band was allowed to crawl, and if realignments were undertaken as appropriate. The skeptical rebuttal is that this is precisely the

kind of arrangement under which Mexico was operating in 1994, and look what happened.

Even if one decides on economic grounds in favor of a common basket peg, there remains the question of whether Asia possesses the political wherewithal to operate it successfully. Asian economic and political relations are based on loose interlocking networks. The notion that the governments of the EA9 would all agree to a common basket peg assumes a uniformity and a reliance on consultation and institutionalization that may be realistic for Europe but which is quite foreign to Asia. Moreover, pegs are resilient to shocks only when they receive collective support. Unilateral pegs can be successfully operated only under exceptional circumstances; even Argentina's convertibility plan required \$8 billion of external support to survive the Tequila Effect in 1995. As European experience has shown, governments are willing to commit significant financial resources to other countries' currency pegs only when there exist institutional guarantees of leverage over those countries' domestic policies. And in Europe, decades of work to create supranational institutions, in turn building on a centuries-long integrationist tradition, has been required to approach that point.

The danger, then, is that putting the economic cart so far ahead of the political horse will create an Asian analog not to the EMS but to the Snake, an unstable and unsatisfactory arrangement. That could end up setting back the cause of exchange rate stability and regional economic cooperation for years to come.

³⁵ And, implicitly, under which Thailand was operating at the time of its banking crisis. Proponents of pegging will object that Mexico simply operated its band recklessly, failing to realign or let the band crawl down at the appropriate pace. Our point is that such problems are intrinsic to the operation of exchange rate bands: not all the contingencies in response to which you will want to have adjusted the band ex post can be anticipated ex ante.

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