

Monetary Cooperation in East Asia: A Survey

RAUL FABELLA

This paper surveys the growing literature on monetary cooperation in East Asia that goes beyond the Chiang Mai Initiative. It compares and contrasts the various proposals for cooperation such as the Williamson basket peg, the Asian monetary system, and the yen block as to their crisis prevention impact and their feasibility, both economic and political. The paper also reviews the evidence on the readiness of East Asia and some of its proper subsets for a currency union in the light of experiences elsewhere, especially of European monetary cooperation. On pure optimum currency area calculus alone, a case can be made for an East Asian currency union. But the great historical, developmental, political, and cultural diversity here highlighted stands as a formidable obstacle. Nonetheless, as the experience of Euroland shows, the very pursuit of even such a distant vision already brings benefits to participants.

I. INTRODUCTION

The Maastricht Treaty of December 1991 and the establishment of the European Monetary Institute (1994) to shepherd the push toward the European Monetary Union (EMU) produced the potential threat of a “Fortress Europe”, which galvanized the forces for economic integration in East Asia. The birth of the North American Free Trade Agreement (NAFTA) greatly reinforced this integrationist agenda. The response took the form of the ill-fated East Asian Economic Caucus proposed by Malaysia and subsequently the more inclusive Asia Pacific Economic Cooperation (APEC). Within the Association of Southeast Asian Nations (ASEAN), the agenda became embodied in the Common Economic Preferential Tariff with its ambitious 10-year tariff reduction program.

Before the Asian currency crisis of 1997-1998, East Asia was a zone of unparalleled success and assertiveness. The Asian crisis injected an element of fragility into East Asia’s economic achievement. Suddenly, the formidable machine buckled and currencies tumbled. The monetary and exchange rate management of the East Asian model was vulnerable. A new paradigm was being mandated by a new reality.

Raul Fabella is the Dean of the School of Economics, University of the Philippines Diliman, and Executive Director of the Philippine Center for Economic Development. The author is grateful to Srinivasa Madhur of the Regional Monitoring Unit, Asian Development Bank, for discussions and critical comments throughout the preparation of this paper.

The literature on the exchange rate expanded in the aftermath of the crisis to embrace the *two-corner solution* of either the free float of the currency or a hard peg. The latter could involve a *currency board* (Fischer 2001) under unilateral stabilization, or *common currency* under multilateral stabilization. *Dollarization*, another fringe solution under unilateral stabilization and a complete surrender of domestic money, gained some respectability (Hausman 2001). The underlying paradigm is the Mundell-Fleming open economy macroeconomics (Mundell 1963) with fully open capital account and the consequent full operation of the “impossible trinity.”

Eichengreen (1994) started the debate on the possibility of monetary cooperation in East Asia in 1994. It was, however, the Asian crisis that gave it urgency, especially the observation that the drastic appreciation of the dominant anchor currency, the US dollar, was partly to blame for the crisis. This was reminiscent of the drastic appreciation of the deutschmark in the run-up to the European currency crisis in 1992-1993.

This paper is a survey of the various facets of monetary, financial, and exchange rate cooperation, reflected by the expanding literature in theory and practice in order to draw inferences for the prospects and challenges of greater monetary cooperation in East Asia.

In Section II, we examine the post-Asian crisis exchange rate and monetary regime in East Asia including the cooperative mechanisms adopted to fend off speculative attacks. Section III examines and compares the competing cooperative monetary arrangements proposed to stabilize exchange rates and serve as a transitory stage to the Asian Monetary Union. In Section IV, we view the evidence for an East Asian optimum currency area (OCA) and tackle the costs and benefits of an Asian Monetary Union. In Section V, we discuss the noneconomic hurdles and suggest a feasible pursuit architecture toward a monetary union in East Asia. Section VI reviews past global monetary arrangements and focuses on the reasons for their success and subsequent collapse. Section VII concludes.

II. CURRENT EXCHANGE RATE REGIME AND MONETARY COOPERATION IN EAST ASIA

We revisit the initial position of our subsequent discussion, namely, the current exchange rate and cooperative monetary status quo in postcrisis East Asia.

A. Features

1. Initial Response

The Asian currency crisis forced most Asian crisis economies (Indonesia, Republic of Korea [Korea] Philippines, and Thailand) to abandon a de facto dollar peg in favor, initially, of an exchange rate float. Malaysia, however, chose to peg and Singapore stayed with a managed float. The People's Republic of China retained its "fixed peg" and Hong Kong, China retained its currency board arrangement (Fischer 2001, IMF 2000). Many observers blamed the de facto dollar peg as one of the precipitating factors of the crisis when the dollar appreciated heavily in the 1990s. The overall effect of the postcrisis adjustments is greater flexibility in exchange rate policy.

2. Reversion?

There is some evidence, however, of a reversion of the observed exchange rate policy to the de facto peg with the recovery. Kawai and Akiyama (2000) showed that in the precrisis period, observed exchange rates in East Asia responded statistically to movements in one or other anchor currency (largely the US dollar), or a basket of currencies. During the crisis, these currencies, suggesting free float, moved independently of their anchors; but in the postcrisis period, their movements appear to once again echo the precrisis response. Despite the loud talk on *inflation targeting*, by consensus a necessary corollary of an independent float, East Asian central bankers still appear to target the exchange rate, albeit within a wider band.

3. Forex Reserve Accumulation

The plausibility of this reversion thesis is reinforced by a defensive move in the form of forex reserve accumulation. Table 1 (see Appendix) shows the extent of forex reserves accumulation to 2000. Countries classified by the International Monetary Fund (IMF) as "independently floating" have accelerated forex accumulation, an anomaly if coupled with a true float. Whether this is a reflection of the Calvo and Reinhart (May 2000) "fear of floating" or of the Hausman, Panisa, and Stein (1999) "fear of pass through" (exchange rate movements being reflected in domestic prices), it still suggests a dirty float and, apart from the wider band, may not differ radically from the previous "de facto peg" regime.

4. Cooperative Arrangements

Yet another evidence of dirty float is the eager participation of these so-called independent floaters in the Chiang Mai Initiative, which involves a currency swap network among the Asean+3 (People's Republic of China [PRC], Japan, Korea). Participants facing capital outflow can quickly borrow foreign exchange for currency defense, from either the Expanded ASEAN Swap Arrangement (to provide liquidity in dollar, yen, or euro) or a network of bilateral swap arrangements or repurchase (sale and buy-back of appropriate securities) agreements among the ASEAN countries, PRC, Japan, and Korea. The ASEAN Swap Arrangement facility is now worth \$1.0 billion. While these short-term liquidity facilities are appropriate for countries with one form or other of a peg such as PRC; Hong Kong, China; Malaysia, Myanmar, and Viet Nam, they again suggest at best a dirty float for Indonesia, Korea, Philippines, and Thailand, which report "independent float." The "reversion thesis" in East Asia reflects the post 1992-1993 European currency crisis exchange rate regime, which abandoned the "hard ERM" with a +/-2.5 percent band in favor of a "soft ERM" with +/-15% band. There is no question that the overall postcrisis East Asia exchange rate system is closer to the float corner solution and less prone to crisis in view of the concomitant reforms.

5. Financial Reforms

Greater transparency and stronger prudential rules for the financial market on top of cooperative capital flow surveillance efforts round up the universe of defensive posturing by East Asian countries. As these strengthen the most crisis-prone segment of the economy, they will clearly reinforce the economy's ability to withstand shocks.

B. Robustness

Only time will tell whether these defensive moves in East Asia will prove more robust than the precrisis one.

The doubling of petroleum prices in 2000 was one shock that East Asia under the current regime seems to have absorbed without much difficulty. This is clear evidence that the wider band and greater market tolerance is working.

The ASEAN Swap Arrangement and bilateral swap arrangements are important because when real resources are pledged and put to risk, the counterpart is usually an implicit contract to consider unsolicited advice from partners as to the seriousness of certain developments. The game clearly is: "If you ignore early warnings from partners, you run the risk of being denied the swap facilities when the crisis comes." This is, however, more effective clearly for idiosyncratic

shocks brought about by internal mismanagement. Shocks that initially raise regional buoyancy as did the portfolio investment in the 1990s, may not be as easily recognized even by many pairs of eyes. This, nonetheless, reduces the likelihood that one partner will persistently lean against the market wind.

C. Drawbacks

The weakness of the current East Asian exchange rate regime is still considerable. This draws largely from its being a unilateral stabilization regime, albeit reinforced by cooperative multilateral swap and repurchase arrangements:

- (i) Misalignments among the major currencies will still translate into regional real effective exchange rates divergence. Thus, the depreciation of the yen will erode the competitiveness of the de facto dollar peggers in the region vis-à-vis the de facto yen peggers. The old conundrum stays.
- (ii) There is ample room for beggar-thy-neighbor devaluations as is normal with unilateral exchange rate stabilization regimes. Moral hazard arises because it is difficult to discriminate between exchange rate adjustment due to “fundamental disequilibrium” and one due to beggar-thy-neighbor. The only enforcement mechanism at work is unilateral response, i.e., let the affected party take countervailing measures.
- (iii) Since there is hardly any explicit binding enforcement mechanism, the swap and repurchase arrangements may induce undue risk-taking, a charge also leveled at the IMF.

III. PROPOSALS FOR MONETARY AND EXCHANGE RATE COOPERATION IN EAST ASIA

As an alternative to the current exchange rate and monetary status quo (i.e., uncoordinated de facto pegs with wider bands reinforced by swap and repurchase facilities), a number of proposals for exchange rate management have been proposed. These range from unilateral stabilization regimes (from one corner solution of uncoordinated free float to the other corner solution of uncoordinated currency board), to coordinated stabilization culminating with a common currency for East Asia or subsets of it. In this section, we will ignore the unilateral solutions and will dwell instead on the regimes characterized by varying levels of coordination. Three proposals are discussed: Williamson’s common basket peg (also known as BBC), the Asian Exchange Rate Mechanism, and the Yen Block.

A. Williamson's Common Basket Peg

By far, the most developed transitional proposal and the most commented on is Williamson's common basket peg (Williamson 1999).

1. Features

- (i) An exchange rate regime targeting a common basket of currencies (US dollar, Japanese yen, and EEC's Euro).
- (ii) A common set of weights attached to these currencies based on regional (not country) trade shares. Thus, explicit or implicit, and idiosyncratic trade-based weights currently being used will have to be removed.
- (iii) Each member announces a central parity vis-à-vis the basket and pledges to keep the central parity within a unilaterally chosen band.
- (iv) The allowance of a range of formal exchange rate regimes such as the currency board in Hong Kong, China; the fixed parity in Malaysia; the crawl in Indonesia; or various types of managed floating in Korea, Singapore, and Philippines.
- (v) Adoption of McKinnon's (2000) "restoration rule" that national authorities, when confronted with massive speculative attack, are allowed to temporarily suspend the peg provided a pledge to return to the original parity is credibly made.
- (vi) Since changes in economic fundamentals and basket currency misalignments are a fact of life, and these impact on member country competitiveness, member countries may allow central parity and the band to crawl as a response to these fundamental changes.
- (vii) A financing analog to the European VSTFF to help member currencies under attack from speculators is envisioned.

Dornbusch and Park (1999) who call Williamson's proposal the BBC (Basket, Band, Crawl) agrees with it but only on condition that it be transitional to a more flexible arrangement. Kawai and Takagi (2001) commend the BBC as a catalyst for greater convergence and exchange rate stability, which presumably would lead to a common currency. This was the role the EMS played in the run-up to the Euro. The latter appears to be the more popular view.

Features (v) and (vi) are clearly influenced by the EMS crisis experience in 1992-1993 when exit from the EMS was forced upon some members (Italy and the UK). A de facto return to the EMS, albeit with a wider band (from ± 2.5 to ± 15 percent) partly explained the stability from 1993 to the end of the EMS era on 31 December 1999.

2. Benefits

- (i) The most obvious benefit is the reduction of the intraregional real effective exchange rate volatility occasioned by misalignments among the major currencies. This was blamed as one source of the Asian currency crisis; the yen depreciated heavily against the US dollar in the run-up to the crisis. Williamson (1999) has given counterfactual simulation evidence of reduced volatility under the common basket peg compared with the status quo.
- (ii) This proposal will also lead to greater overall stability and predictability of the nominal exchange rates (which, presumably, businessmen pay attention to) of those countries currently pursuing a “managed float.” The lynchpin is really greater transparency. In the status quo system, national authorities can manipulate the weights to ram down exchange rate changes that suit their self-serving purposes. Under the Williamson proposal, changes in exchange rates unwarranted by changes in the basket currencies can be called to account by member countries.
- (iii) Thus, there is considerably less room for beggar-thy-neighbor devaluations and should focus competition on supply-side effort.
- (iv) The latter will lead to some convergence in Maastricht-like and OCA-like conditions for the region, which will prepare the ground for even greater regional monetary cooperation. This anchors Kawai and Takagi’s (2001) support for Williamson’s BBC.
- (v) Relative to EMS, there is considerably less need for policy coordination and surveillance (Kawai and Takagi 2001), where institutions for this purpose are sparse.
- (vi) This can hasten a more complete commercial integration of East Asia. In the European Economic Community, the EMS coexisted with the Single Market Act of 1986, which completed the market integration of the European Economic Community.
- (vii) This will strengthen East Asia’s voice as a negotiating block in the world.

3. Costs

The main attraction of Williamson’s BBC is that it calls for no drastic change in the exchange rate regimes of member countries. It only calls for changing the target currency. This latter change has three parts: First is the shift of the exchange rate target to a basket of currencies from the dollar or whatever currency was previously targeted. Second, the inclusion of and only of the three

major currencies (dollar, yen, Euro). Third, the adoption of a common set of weights.

The first, largely uncontroversial as it is already a reality for Thailand, has been proposed for Hong Kong, China. Furthermore, *effective*, as opposed to formal, exchange rate management shows that authorities, even of self-styled free floats, do respond to movements in one or more major currency (Kawai and Takagi 2001, Kawai and Akiyama 2000, Frankel and Wei 1993). This points toward weak potential resistance of East Asian central bank authorities to this shift.

The second, once the first has been hurdled, is also relatively uncontroversial, since the statures of these three currencies are unchallenged.

The third aspect, the adoption of a common set of weights, is more contentious because it really is the more cooperative feature of the proposal and spells out the cost. As long as the weights attached to the three currencies are idiosyncratic, the cost to members is negligible. The common regional weights attached to the three-basket currency do involve a real sacrifice of national sovereignty.

Suppose the yen depreciates 10 percent against the US dollar. In a common currency basket that gives the yen a 30 percent weight, the warranted depreciation of domestic currency is 3 percent. This will be the average depreciation against the yen in the region, which reduces the implied appreciation versus the yen. If the trade shares of a particular country X shows that Japan has a 100 percent share and a proper weight of 1.0, country X's currency, if unilaterally stabilized, should depreciate fully by 10 percent if X's competitiveness against rival exporters to Japan, whose currencies are pegged to the US dollar, is to be maintained. Thus, X will lose "competitiveness" with only a 3 percent depreciation. This narrowing of the room to fully pursue self-interest is the cost of the common basket peg.

Note, however, that the common basket does limit the variance of regional exchange rate responses due to a 10 percent yen depreciation. Indeed, they all change by 3 percent and so preserve cross-regional competitiveness. Country X has to be convinced that this reduction of divergence among member exchange rates delivers benefits in excess of those foregone due to the loss of its maneuvering room available in the status quo with idiosyncratic weights. Clearly, even in this very loose cooperative arrangement as the Williamson proposal, there is no free lunch.

This cost is absent for those countries whose idiosyncratic trade weights resemble the region's. These countries get the benefits without the cost. It is the outliers who clearly bear the brunt of this cost. Note that this cost is reminiscent, if dwarfed, by the much larger analogous cost of cooperation under the common currency.

Williamson's BBC does not provide for an administrative arm although there definitely are coordination issues, such as the restoration rule and the very short-term financing facility.

4. Differences with the EMS

One can view, as do Dornbusch and Park (1999) and Kawai and Takagi (1999) Williamson's BBC as a transitory monetary cooperative arrangement leading to a more permanent monetary union. As such, it assumes the role EMS played in the run-up to the Euro. A comparison is, thus, in order. The common features are:

- (i) a common target basket
- (ii) a band around the central parity
- (iii) a loan facility to allow quick forex liquidity to currencies in distress
- (iv) allowance of adjustment in response to fundamental disequilibria

The differences are considerable:

- (i) The band and the central parities are collectively agreed upon in the EMS, which is not so in the BBC, where these are unilaterally determined.
- (ii) The EMS allowed only a target zone exchange rate regime with a float within the zone whose thresholds are set by the EMS (2.5 percent above or below the central parity for the hard EMS; 15 percent for the soft EMS); the BBC allows all exchange rate regimes except a float.
- (iii) The composition of the common basket differs: in the EMS, the common basket consists of member country currencies; in BBC, the basket consists of the major currencies in the world.
- (iv) The common basket target in the EMS, in practice, became largely the deutschmark.
- (v) The Williamson BBC uses a common regional trade share-based set of weights.

Thus, the degree of cooperation in the EMS is considerably larger than it would be under BBC. One may view BBC as a primitive EMS that requires less cooperation but, nevertheless, may lead to greater convergence.

B. Asian Exchange Rate Mechanism

This proposal of Oh and Harvie (2001) seeks to replicate EMS's Exchange Rate Mechanism in the Asian region. Features of the Asian Exchange Rate

Mechanism (AERM) dovetail with those of the ERM but with notable differences.

1. Features

- (i) An Asian Currency Unit (ACU) to dovetail the European Currency Unit of the EMS is envisioned. The former is a basket of Asian member country currencies, which will serve as a single basket currency target.
- (ii) The weights assigned to each country are the trade share of the country in total trade of the region. This differs from the weighing system in the ECU, which involves an arbitrary quantity of the currency in the basket.
- (iii) The member country exchange rates are to float within a band of 15 percent plus or minus the central parity just like the post-1993 “soft” EMS. The central parities are not unilaterally determined.
- (iv) A lender of last resort in the form of a quick disbursing loan facility akin to the EMS’ VSTFF to weather speculative attacks.
- (v) The central parity is to be approved by an authority, the Asian Monetary Institute, which is like the European Monetary Institute, to manage the AERM and implement agreed coordination and surveillance policies.
- (vi) The target zone exchange rate regime is obligatory for each country.

2. Benefits

The benefits of AERM are those associated with the EMS’s ERM. Since it involves a closer coordination than Williamson’s BBC, AERM’s cooperative benefits are in the same direction as BBC but stronger, i.e.:

- (i) reduced intraregional volatility of real effective exchange rates resulting from intraregional parity changes (due, say, to fundamental shifts) and a greater degree of co-movement of the intraregional exchange rates
- (ii) reduced nominal volatility and increased investment rate
- (iii) less room for beggar-thy-neighbor initiatives using demand side policy instruments
- (iv) stronger convergence effect than warranted by Williamson’s BBC
- (v) conduces toward faster commercial integration in EA
- (vi) a proven tract record as a transition phase to single currency

3. Costs

The individual member country costs of AERM are larger than the BBC where they are in the same direction. There is a somewhat different cost due to the basket composition:

- (i) The freedom to maneuver in AERM is curtailed as in the BBC, but greater. Since the target is now a basket of member country currencies; changes in the alignments between major currencies, e.g., between the dollar and the Euro, will not get reflected in exchange rates of member countries.
- (ii) If the Euro depreciates against the dollar by 10 percent but not against the yen, blocs attached to the Euro will gain competitiveness in the US at the expense of the AERM bloc.
- (iii) If the Euro depreciates against the yen by 10 percent, and country X in the AERM has 100 percent of its exports into Europe but its weight in AERM and the weight of Japan in the Asian currency union (ACU) is 50 percent, then country X's currency will depreciate against the Euro by 5 percent or half what is warranted by its own individual trade share.
- (iv) If the Euro appreciates by 10 percent against the US dollar, and the yen has 50 percent weight in ACU, country X, which exports 90 percent of its total to the US, will appreciate by 5 percent, thus, losing competitiveness in the US against dollar-bloc countries like NAFTA or MERCOSUR.

This reduction in degrees of freedom must be traded off against the benefits of the AERM. This could conceivably evolve into a yen block the way the EMS evolved in practice into a deutschmark block.

4. Practicability

Off-hand, it is clear that Williamson's BBC, which requires looser cooperation, faces a lower political hurdle than the AERM. With so diverse a set of members (see Section VI for a rundown), it is easier to agree on a common basket of three widely recognized major currencies (dollar, yen, and Euro) rather than of member country currencies whose weights will naturally favor the yen. This could be contentious.¹ Since the AERM requires either a target zone or a fixed rate system, current exchange rate arrangements may need to be given up (Hong Kong, China's currency board would be given up if a target zone is adopted; Korea and the Philippines's managed float would have to go if a fixed rate is adopted). Greater resistance by central bank authorities is expected.

C. The Yen Block Proposal

Although less widely commented on, the yen block proposal by Ohno and Shirono (1997) and Dornbusch and Park (1999) would have been the most natural for East Asia before the collapse of the Japanese bubble economy in the late 1980s. The fate of the yen block has dimmed with the persistent problems of the Japanese economy but may still revive depending on the outcome of the Koizumi reforms program in Japan. This is actually closer to the EMS in the late 1980s with the deutschmark as effective anchor. Thus, its importance is that the Asian Monetary System, if implemented, may stumble into the yen bloc regime.

1. Features

A peg or a target zone regime may be envisioned with the yen as the anchor currency, similar to the EMS in the late 1980s when the deutschmark became the effective anchor of the ERM. Other features of EMS, such as the EMI-type coordination and surveillance body and the establishment of the initial central parity cooperatively agreed on, would also be present.

2. Benefits

These are similar to those of the EMS and could clearly be stronger than those of the Asian EMS. The yen bloc could also be the steady state structure of the latter. But the actual benefits depend on how the Japanese economy performs and especially on how open and robust the Japanese financial sector becomes. The slow pace of financial reform and the limbo-like state of the Japanese economy are the principal stumbling blocks.

3. Costs

The principal cost of a yen block vis-à-vis the Williamson proposal is that misalignments among major currencies will reflect on the competitiveness of East Asian member countries. The appreciation of the yen against the US dollar would erode East Asia's competitiveness against the dollar block countries, such as MERCOSUR or NAFTA. But such misalignments will not affect interyen block competitiveness, thus preserving the intrablock competitiveness rivalry for supply side instruments.

The cost will be different for different groups of members in the block. Korea and Taipei, China compete heavily with Japan in third markets while importing heavily intermediate inputs from Japan. An appreciation of the yen will hurt Korea and Taipei, China less in third markets such as the US, since the price

of Japan's exports will also rise. Thus, those countries that *compete heavily* with Japan are less affected by major currency misalignments.

Countries whose trade rivals are in dollar blocks will lose market share. The PRC is a prime example of this latter group. The opposite will be true if the yen depreciates. Thus, the volatility of the anchor currency in the block and its general drift determines who among the yen block countries gain or lose. The deutschmark functioned well as the effective anchor for the EMS in the 1980s because it was very stable. However, it also hurt the competitiveness and viability of other EMS countries when it became very strong in the run-up to the 1992-1993 EMS crisis (the deutschmark appreciated 17 percent against the dollar between March and September 1992).

4. Practicability

The viability of the yen block proposal hangs not only on the performance of the Japanese economy and the concomitant restructuring of the Japanese financial sector but also on political considerations. Just as the EMS was opposed by some as the lynchpin to boost the dominance of the deutschmark and Germany, so will the yen block revive memories of the imperialistic Asia-Japan Co-Prospersity Sphere of the 1940s. The PRC will most likely pose the strongest political obstacle to the yen block. Korea, with the prospect of unification, may also balk, although economically, it may gain. That the yen was, in practice, lightly targeted as an anchor despite the economic weight of Japan in the region indicated a "revealed aversion", although this may be due to historical inertia.

D. Evaluation

It could be expected that the degree of political difficulty will be directly proportional to the depth of cooperation embodied in the monetary integration. This is because the deeper the monetary integration, the more extensive is the sacrifice of national sovereignty. In contrast, the extent of the economic benefit is directly proportional to the depth of cooperation. This is the fundamental trade-off that confronts the membership of a proposed monetary integration.

The least politically difficult transitory arrangement beyond the status quo is Williamson's BBC. The most beneficial—in terms of economic benefit—is the AERM.

The European strategy to resolve the conflict is to crawl toward the EMU and let events decide the next step. Even for Europe with all its advantages (see Section VI), a big bang with all its attendant uncertainties would not have been feasible. As long as the vision is kept alive by tangible successes, a crawl to the AMU may be the better part of wisdom.

Whatever the degree of monetary integration, its robustness depends upon its capacity to absorb market pressures. Market pressures, on the other hand, grow in proportion to the extent of inconsistency of the arrangement with Mundell-Fleming imperatives. At the moment, the proposed arrangements are still at that stage where no explicit mechanisms to safeguard Mundell-Fleming consistency are proposed. There are no mechanisms to limit the financing of deficits by monetary expansion.

IV. COSTS AND BENEFITS OF A MONETARY UNION IN EAST ASIA

This section dwells first on the considerable evidence on East Asia as an OCA, which suggests the costs and benefits of a currency union. We then summarize in detail how the benefits and costs will be realized.

A. The Evidence on Economic Feasibility

The case for a currency union in East Asia on purely economic grounds alone appears favorable and heavily documented, as will be shown below. The economic (OCA) criteria are better or worse served depending on the membership. Japan; Korea; and Taipei, China form a favorable common currency axis. The ASEAN, as a whole, does better in the OCA sense than Mercosur or NAFTA but slightly worse than particular subsets such as Hong Kong, China; Indonesia; Singapore; Thailand (Eichengreen and Bayoumi 1999) and the EU. The Asean+3 suffers from large variance in development levels, financial structures, and economic sizes. Appendix Tables 2, 3, and 4 summarize the evidence on East Asia as an OCA.

The OCA criteria are grouped into three categories (see, e.g., Barro 2001, Bayoumi and Mauro 1999, Mundell 1961):

- (i) Benefits from a currency union are inferred from the importance and composition of intraregional trade. The greater the importance of trade within the region, the larger is the benefit from abolition of multiple currency-related transactions costs consisting largely of currency exchange and currency risk-related cost.
- (ii) Costs of a currency union are suggested by the asymmetry of macroeconomic shocks affecting the economies of the region. A currency union implies a surrender of monetary policy by an economy whose idiosyncratic shocks can no longer be addressed using monetary instruments. These likely costs can be mitigated by high factor mobility. The pain from an idiosyncratic income slump in one area is mitigated by the shift of workers from that area.

- (iii) Costs and benefits can also be gleaned from the similarity of potential members in levels of economic development, quality of financial sectors, and macroeconomic and ideological postures. Clearly, the cost of integration falls the more similar the countries are in these dimensions.

1. Shock Symmetry and Response

The methodology here mostly follows Blanchard and Quah's (1989) structural vector auto regression model. This involves identifying disturbances in output as either demand (temporary) or supply (permanent) shocks using time series of output and prices. Three OCA relevant measurements fall out of the exercise: size of shocks, speed of adjustment to these shocks, and correlation of these shocks (see Appendix Table 2). Eichengreen and Bayoumi (1999) report the following findings for EA-9 for the period 1972-1989:

- (i) Aggregate supply shocks are about the same size in Europe as in East Asia;
- (ii) Aggregate demand shocks are about twice as large in Europe as in East Asia;
- (iii) The impulse response analysis shows the speed of adjustment to shocks in East Asia to about two years, which is twice as fast as in Europe. Japan; Hong Kong, China; and Taipei, China are the fastest adjusters while the Philippines is the slowest. This could be due to greater labor market flexibility in East Asia.
- (iv) Demand shocks in Hong Kong, China; Indonesia; Malaysia; Singapore; and Thailand are highly correlated, as are those of Japan; Korea; and Taipei, China.
- (v) Japan; Korea; and Taipei, China form one subgroup with highly correlated supply shocks. Hong Kong, China; Indonesia; Malaysia; and Singapore comprise another subgroup with high supply shock correlation. In contrast, the Philippines appears to be a complete outsider, as do Ireland and Portugal.
- (vi) Estimated OCA indices (predicted level of bilateral exchange rate variability explained by four OCA proxies, viz., real output, differences, sector share differences, bilateral export ratios and GDP difference) for Singapore-Thailand; Singapore-Hong Kong, China; Singapore-Taipei, China; and Hong Kong, China-Taipei, China are very low and are within the Euroland league. This means that an external peg for these tandems would not harm. Indonesia, Korea, and Philippines are not closely integrated by the OCA index used.

Bayoumi and Eichengreen (1996) construct OCA indices for East Asian countries vis-à-vis Japan, Germany, US, and the Williamson Basket. They show that the OCA indices of East Asian countries against the Williamson Basket are comparatively low (suggesting that pegging to the Williamson Basket will not harm as against pegging to the dollar, euro, or yen. Singapore and Hong Kong, China would, however, prefer to peg to the US dollar.

Kawai and Takagi (2001) examine the response of GDP to changes in the real effective exchange rate for East Asian countries. For noncrisis countries (PRC; Hong Kong, China; Singapore; and Taipei, China) GDP initially increases with a real depreciation. In contrast, in crisis countries (Indonesia, Korea, Philippines, and Thailand), GDP initially falls for the full sample for 1970-1998. If the crisis years 1997-1998 are left out, the negative response of GDP disappears even in crisis countries, except again in the Philippines. The initial response diminished over time. Prices tend to rise with a depreciation during the precrisis period. Thus, in East Asian economies, real output and prices respond significantly to changes in the real effective exchange rate. Thus, a scheme that stabilizes the real effective exchange rate will help ensure macroeconomic stability.

Benassy-Quere (1999), following Bayoumi and Eichengreen (1996), regressed bilateral exchange rates against the yen; dollar; deutschmark; and three OCA criteria (output variability, export similarity, and intensity of bilateral trade) and showed that the first had positive, while the second and third had negative signs. Thus, output shocks lead to higher volatility and trade integration leads to less.

Plummer (2001) shows a high cross correlation among East Asian GDP, and thus, shock symmetry is present.

2. Intraregional Trade

a. Trade Intensity

Goto and Hamada (1994) investigated the degree of interdependence among East Asian countries in 1990 via trade and factor mobility. The estimated indices of trade intensity measuring the strength of bilateral trade between two countries were very high for many pairs. In particular, Japan's trade intensity with East Asian partners was high and in excess of Germany's with some Euro-land partners (see Appendix Table 2).

Kawai and Takagi (2001) used 1995 data to confirm Goto and Hamada. Countries in the continental Asean (Cambodia, Laos, Thailand, Viet Nam) as well as the PRC and Hong Kong, China, are highly interdependent (trade intensity index of 5 or better). Japan continues to be extremely important for East Asia

and even proves more important in East Asian trade than Germany in Euroland (see Appendix Table 2).

b. Exports and Imports

Kawai and Takagi (2001) show that East Asia's trade with itself is 37 percent of total trade; plus Japan is up to 45.0 percent. Imports to itself is 34.6 percent of total imports; plus Japan is 49.4 percent. All these are very high. By contrast, ASEAN exports to itself is only 22.1 percent and imports to itself is 18 percent of total. The US, Japan, and EU take up 19.1, 15.4, and 15.2 percent share, respectively, of ASEAN's total trade; and 20.7, 12.9, and 14.5 percent, respectively, of East Asia-14's total trade. The latter suggests that a peg to a basket of three major currencies for East Asia-14 makes sense.

Bayoumi and Mauro (1999), focusing only on ASEAN (which is less integrated than East Asia-14 by intraregional trade), showed that the region's regional trade as share of regional GDP is high and similar to Europe's (11.7 vs. 12.8 percent for exports and 11.8 vs. 12.0 percent for imports; see Appendix Table 2). Comparable MERCOSUR figures are 2.1 percent for exports and 2.3 percent for imports, while NAFTA figures are 5.3 percent for exports and 5.4 percent for imports. The share of manufacturing in total exports and imports are about 80 percent in both cases, higher than MERCOSUR (50 percent). This means a highly diversified trade structure. As shown by Kawai and Takagi, ASEAN, being highly dependent on US, Japan, and Europe as trade partners, is vulnerable to fluctuations in major currencies.

Plummer (2001) reports a very high correlation coefficient for some East Asian exports for certain East Asian countries. Malaysia and Singapore exports exhibit a correlation coefficient of 0.6. The Philippines and Indonesian exports, in contrast, do not correlate highly with those of its neighbors.

3. Factor Mobility

Goto and Hamada (1994) report on the extent of foreign labor employment in developed East Asia (see Appendix Table 2). In Singapore in the 1980s, about 10 percent of employment were workers from Indonesia, Malaysia, Philippines, and Thailand. Foreign labor in Hong Kong, China is also very substantial. Caution has to be exercised on this score. Most of foreign labor presence is due to labor contracts with very definite entry and exit specifications with hardly any free movement at all, much like Turkish workers in West Germany and North Viet Nameese workers in East Germany or Bangladeshis in Kuwait.

Kawai and Takagi (2001) report that in East Asia-14, 11, 10, and 9 percent of total foreign direct investment (FDI) into in 1990-1998 came from Japan, US, and Europe, respectively. Over 40 percent, however, came from East Asia itself.

Moon et al. (2000) report that East Asia's FDI/GNP of 1.75 percent exceeds that of EU (1.59 percent).

4. Maastricht Convergence Criteria

Oh and Harvie (2001) report that in terms of performance of East Asian countries against the Maastricht criteria, East Asia does as well as Europe on the fiscal criteria but poorly in monetary criteria (prices and interest rates).

5. Levels of Economic and Financial Development, Size, and Ideological Leanings

On these dimensions, East Asia scores very poorly relative to Europe (see Appendix Table 3). This is discussed more lengthily in Section V.

B. Common Currency for Asean+3

Abstracting from the difficulties that normally attend the realization of a common currency (see Eichengreen 1996, and Eichengreen and Bayoumi 1999), we leapfrog to a point where there already is a common currency (the "Oriental" hereafter) in Asean+3. The institutional underpinnings of the "Oriental" could be:

- (i) An Asian Central Bank with a monopoly of monetary policy for the region.
- (ii) An Asian EMI-type governance institution with monitoring/ surveillance and advisory roles on member macroeconomic situations with a limited (fiscal federalist) budget as its enforcement mechanism. This body determines the claim of a country going through an idiosyncratic shock to the adjustment budget and repayments.
- (iii) A political commitment of remarkable depth that was presumably tested along the way to currency unification.
- (iv) A starting point that is the status quo, i.e., de facto peg to the US dollar with much wider bands supported by higher reserves (Park 2001) and by CMI instruments, i.e., ASEAN Swap Arrangement and bilateral swap arrangements (see Kawai and Takagi 2001 on possible postcrisis reversion; also McKinnon 2000).
- (v) A true float vis-à-vis other major currencies.
- (vi) A more or less completed commercial integration that served as a springboard for the currency union.
- (vii) Fully open capital account.
- (viii) An Asean+3 that is a customs union.

These are but several sets of institutional support. One cannot discuss the costs and benefits of a currency union in an institutional vacuum. Currency unions as a historical outcome are necessarily *path dependent*.

1. Benefits

In a currency union, intraregional exchange rate instability, which is possible within the current “de facto peg”, will cease and reduce transaction cost. Specifically the forward (intraregional currency) market premium will disappear. This will raise the relative advantage of intraregional trade against cross-regional trade.

The transaction cost associated with intraregional currency shifts will disappear, reinforcing the demise of the intraregional currency futures market. This will serve like the tariff reduction in a preferential trading arrangement and will be trade-creating. It may also well be trade-diverting as members take up trade previously done with outsiders.

The above two conditions will contribute to the welfare gain of member countries (Bayoumi 1994), especially since ASEAN+3 is very open and has a large external sector.

The likelihood of a currency crisis will fall relative to that in the current de facto dollar peg. First, the likelihood of currency misalignment is reduced since the Oriental is a float vis-à-vis other major currencies. Second intraregional beggar-thy-neighbor moves will disappear as an option. This is important, since price and output response to change in exchange rate is considerable (Kawai and Takagi 2001) and the temptation to shirk is high. Third, intraregional misalignment, which is still possible in the current de facto peg, will cease to exist. Thus, intraregion-originated currency contagion ceases.

With greater regional monetary and exchange rate stability, the region becomes more attractive to FDI (Benassy-Quere et al. 1999). There will likely be a reconfiguration of FDI shares compared to the status quo. Currently, the PRC, with the largest market and strongest growth potential, gets most of the FDI going into the region (\$20 billion by July 2001). ASEAN, in contrast, will suffer a net loss of FDI in 2001 (Hanoi Minister’s Conference Communique 2001). A currency union will serve to bolster the status of the weaker members of the union in the eyes of the world, especially as commercial integration shall have occurred. Thus, the currency union will confer a reflected attractiveness to weaker members. This will raise the share of weaker members in total FDI entering the region. The dampening effect to the reflected attractiveness is the quality of infrastructure in the weaker members. No fiscal transfers for infrastructure upgrade, as happened in Europe, are envisioned.

The presence of an institutional infrastructure designed to support the Oriental, ACB, and Asian Monetary Institute will have a *knock-on effect* on mac-

roeconomic and financial performance of weaker members leading toward quicker assimilation of and a convergence to best practice, especially in the all-important financial sector and in the fiscal sector. This will, on one hand, strengthen the monetary union (which improves with some macroeconomic coordination) and, on the other, improves the growth prospects of the monetarily weaker members. Endogenous convergence of OCA criteria will be served (Frankel and Rose 1997, Rose 2000).

We suspect (as does Madhur 2001) that the benefits of a currency union in EA could be grossly underestimated due to a lack of proper appreciation of endogenous OCA convergence. Rose (2000) shows, using a gravity model, that intraregional trade rises by 300 percent with the introduction of a currency union. There should also be a convergence toward shock symmetry (Frankel and Rose 1996). Danthine et al. (2001) report that on almost all counts, the EMU has already altered the financial landscape of the Euro zone as transactions cost and liquidity risk fall. Thus, benefits cannot be properly gleaned only from the current arrangement because drastic policy changes tend to change behavior substantially. A case in point is how the Socialist *relance* in France was given up in favor of staying with the EMS. How the labor market will adjust remains an open question (Buti 2001).

The political will and cohesion associated with engendering the Union will surely be brought to bear on the world political stage. Fora such as WTO, IMF, and World Bank, will feel the strength of a stronger East Asia—that is, if they can find enough common ground to defend.

Members with the least credible monetary policy (and, therefore, the least effective as instrument of policy) will gain the most. They are giving up something they do not already have. This clearly is happening to Italy in the case of the Euro.

Overall inflation will fall in the region (Ghosh et al. 1997) and investment may be higher. This may, however, reduce the incentive to pursue labor market reforms (Sibert and Sutherland 2000, Cukierman and Lippi 2001).

2. Costs

The loss of monetary autonomy means that the East Asian export-led catch-up strategy (see Fabella 2000), which worked for East Asia very well before the 1990s—a dollar peg with persistent currency undervaluation, financial market subject to state direction, less than complete capital account opening—is no longer an option for the lagging members of the union. That lesson of history, which the PRC is still trying to follow, will cease as an option. This is related to Kawai and Takagi's (2001) multiple objectives of exchange rate policy. In particular, rapid growth may have to be given up in favor of average growth.

The great diversity of the membership could pose the biggest problem (Kawai and Takagi 2001; see also Section V for a fuller treatment). A member with a tradition of hard and credible fiscal and monetary policy may be tempted to bolt to accelerate its own catch-up process à la East Asian model, seeing that the Union is, anyway, fully open to trade. It can, as an outsider, conceivably employ a beggar-thy-neighbor exchange rate policy against the union, which cannot reply in kind because it has to cater to the demands of a very diverse group. Of course, focused countervailing tariffs (as long as WTO-sanctioned) could still be imposed on exports of exchange rate predators. This could be tricky if the predator competes heavily with one member, say Thailand, and buys heavily from another, say, Japan. This decision to join also hangs on the eventual fate of EMU outsiders, e.g., Norway, Sweden, and UK. Potential members may thus exercise the opt-out option, which clearly has value under uncertainty.

The Colignon effect (Colignon 1999) will kick in: as intraregional exchange rate volatility expires, interbloc volatility will rise. This is due to the adjustment burden being carried only by one price (the common currency), instead of by many. Thus, the transaction cost associated with a volatile exchange rate will rise in intrabloc trade. This will have a further trade-diverting effect.

The Bayoumi effect (Bayoumi 1994) will also kick in. While member countries are likely to gain due to reduction in transactions cost, economies outside the union will suffer a welfare loss due to a negative output effect coming from possible reduced wage flexibility (see also Cukierman and Lippi 2001, Grüner and Hefeber 1999). This reinforces the Collignon effect: volatility rises in their exchange rates. This, of course, is one motive to become a member of the union, and a threat to potential bolters. (It may also explain Australia and New Zealand's unease with Asean+3).

Again, the diversity of the membership can work against it. Japan is already the second largest economy in the world and should be expected to demand a disproportionate role. The PRC will conceivably be the largest economy in the world by 2020 if it continues to grow at the current rate, and should be accordingly accommodated. At given union exchange rate, reflecting the average competitiveness, Myanmar may be having a huge current account deficit, which it can address only with fiscal austerity. Since fiscal federalism is slight or absent, Myanmar may have to go into a deep recession with dire political consequences, leading to temporary suspension of membership. Thus, the economic diversity of the currency-unified region stands in the way of its sustainability even as it stands in the way of its realization in the first place. Just as in every country with political integration, an opt-out option may be exercised by a province or region when the political thresholds are breached, so will it be more readily exercised in a currency union without political integration.

The issue of diversity in economic development and financial sector diversity argues for a two-speed or three-speed monetary integration with, perhaps,

Hong Kong, China; Japan; Korea; Singapore; and Taipei, China on the first OCA boat (see also Section V).

V. NONECONOMIC HURDLES AND PURSUIT ARCHITECTURE FOR ASIA'S MONETARY UNION

This section compares the advantages of Euroland over East Asia and suggests features of a possible pursuit architecture.

A. Euroland's Undue Advantages

1. Integrationism vs. Nationalism

Whether the European Monetary Union will prosper or founder now becomes one of the most intriguing political and economic questions of the first decade of the new century. The Gold Standard, at the peak of its hegemony at the dawn of the last century, breathed its last before two decades was up. The EMU will decide the battle between the integrationist tradition and nationalism. It is the latter complexed with imperialism that many believe produced the Franco-Prussian War in 1870, the Russo-Japanese War in 1904, the First World War, the Second World War, and countless other wars that mocked the achievements of the 20th century. This was the credo of the famous *Ventotene Manifesto* authored by one of the fathers of European federalism, Altiero Spignelli (Yergin and Stanislaw 1998). The increasing surrender of national sovereignty to global cooperative endeavours—inherent in the denationalization of money in the EMU and deeper inroads of WTO—will, if it proves robust, distinguish the 21st from the 20th century.

2. War

The EMU is historically unparalleled in that it seeks a monetary union in the absence of a political union among countries that have a proven record of economic success. Monetary union in the US came only in 1788 after political union had been cemented. Monetary union in Germany came only in 1871 after Germany had thrashed France and long after the *Zollverein* got going in the 1830s. Italy's monetary unification came only in 1893 after its political integration in 1861 (Eichengreen 1996). And some currency unions could not survive political disintegration, e.g., the Russian ruble area.

A fundamental reason, observes Goodhart (1995), why states cling tenaciously to monetary autonomy is war. If war between distinct nation-states is inevitable, then the power to print money and the resulting seigniorage it confers is crucial. It is, after all, the “revenue of last resort” (Goodhart 1995). Political in-

tegration dissolves the nation-states and reduces the likelihood of war (the Ventotene Manifesto thesis). It also improves the prospect of a fiscal federalist solution to idiosyncratic shocks, of which border wars are an example. Thus, monetary autonomy is more readily given up after political integration, rather than before.

European integration has always drawn strength from one overarching political enterprise: maintaining Europe as a “zone of peace.” This was Jean Monnet’s answer to the enduring German question: only in the economic embrace of Europe will Germany flourish, not only for herself but also for her neighbors (Yergin and Stanislaw 1998). Chabot (2000, 63) does not exaggerate when observing that “...the legacy of armed conflict in Europe plays a crucial role in the process of European integration.” Although political integration may not be necessary for monetary union, as Eichengreen argues, some monumental political project must proxy for it (see Kamppeter 2000 for an excellent discourse on the political imperative behind integration). While there are other uniquely European threats that reinforced the integrationist movement, the prevention of war was clearly the most decisive.

3. Other Historical and Intellectual Antecedents

That most of Euroland used to be part of the Roman Empire and Pax Romana, greased along by durable Roman roads and imperial coins (*denarii*), is still viewed today with some nostalgia. Most European languages have absorbed and assimilated the polysyllabic concept words of Latin, which was, for centuries, the language of formal discourse in the Holy Roman Empire. Roman Law lives in Europe’s legal systems. Christianity, in various guises, is the dominant religion of worship even as every member state is avowedly secular. All of Euroland uses one written script: Roman.

Member states exhibit various hues of the welfare state-mixed economy model consciously embraced during the Cold War as a middle ground between the US’s market capitalism and the Eastern Bloc’s socialism (Yergin and Stanislaw 1998). One Eurail pass can get a tourist from one end of Europe to another; one Schengen visa opens border entry everywhere. A common musical tradition allowed the adoption of Beethoven’s Symphony No. 9 (*Ode to Joy*) as Euroland’s anthem. Not to be sneezed at is the fact that Europe is already one big soccer league with the UEFA Champions League at the forefront.

The intellectual advocacy of a Pan-European entity has a long proud tradition: Bentham, Rousseau, Saint-Simon, Victor Hugo, the Pan-European Union and, of course, Monnet, Adenauer, Delors and Spinelli. Jean Monnet was an especially auspicious accident. He was French, held a British special citizenship signed by Churchill, and was admired in France, UK, and US for his war effort. These are comfortable promontories from which to launch a deeper European integration. They are simply unparalleled elsewhere.

4. Skepticism

And yet, skeptics are not lacking. Concludes Obstfeld (1998, 30): “Along several key dimensions, Europe is *not ready* for EMU, and the Euro zone’s future economic performance and political cohesion are more than usually uncertain.” Feldstein (1997) argued that an indefinite postponement is the better part of wisdom. The pro-EMU’s rejoinder for a go-ahead are: (i) to prepare completely would postpone EMU indefinitely, and (ii) endogenous convergence will fill the remaining gaps. Argument (i) is the spot on which Obstfeld concedes and reflects one proto-Eurolander’s, Kant’s, dictum: “Perfection is the greatest enemy of good”. The second argument has a good deal of empirical support (e.g., Rose’s 2001 “times three” trade effect).

B. East Asia

1. Diversity

By contrast, East Asia’s multilevel diversity has little parallel elsewhere. It embraces all major religions: Christianity (Philippines, East Timor); Islam (Brunei, Indonesia, Malaysia); Buddhism (Cambodia; Hong Kong, China; Singapore; Taipei, China; Thailand); Communism (PRC, Viet Nam); and Taoism (Japan).

As linguistically varied as Europe, it has the added burden of a multiplicity of scripts: Thai, Roman, Hiragana, etc., although the use of Chinese kanji characters dominates the region.

Although most East Asian states swear by the market economy, their governments range from military junta to central committee, to many hues of electoral democracy. Some of these subscribe to an official state religion while some are secular.

The East Asian region has a representative in every level of development, from the elite among OECD members to bottom dwellers of the poverty ladder.

In terms of size, East Asia has the largest country (population) in the world and some of the smallest. How will voting rights be apportioned between East Timor and the PRC?

More interestingly, while some countries (i.e., the old and new tiger economies plus the ASEAN-4) are in the convergence circle (in the growth economics sense), others are still out of it. In contrast, all of Euroland was clearly in the convergence circle (Barro and Sala-i-Martin 1995).

The financial sectors of East Asian economies also display every level of sophistication, from the highest to the nonexistent.

Many of these nations are postwar neonates with varied colonial pasts.

2. Fears

While one can argue that these cultural and developmental distances occur in comparable degree in some countries, say India, the regions in these comparators were never given the option of entry. Their monetary union was predicated on political union. Indeed, the media-fed experience in East Asia is more opt-out than opt-in: Bangladesh; East Timor; Taipei, China; (Hong Kong, China had no choice) and trouble spots in India, Indonesia, and Philippines. The one overarching communist threat that existed during the Cold War, which spurred SEATO and the ASEAN into action, has petered out. The post-Asian Crisis' "fear of Soros" drummed up by Prime Minister Mahathir of Malaysia is not generally shared.

One legitimate spur to deeper integration is "fear of Fortress Europe and NAFTA," which was the original wellspring of greater integration in East Asia. Another fear, which is palpable among businessmen in the rest of the region, the "fear of the Mainland China", is a distant equivalent of the German question in Europe, and may be similarly exploited.

Overall, the near-term prospect of a monetary union is hazy at best. But that should not deter the pursuit. If the EMU teaches one thing, it is that the pursuit of monetary union is already very beneficial to those involved, in that it forces members to satisfy macroeconomic criteria that are very stabilizing.

C. Pursuit Architecture

East Asia may indeed be too varied for a monetary union to be politically feasible in one go. There are many ways to pursue that end:

1. Multispeed

Certain subsets of East Asia have always appeared as natural OCA candidate. Countries in East Asia that are in the convergence circle (Japan; Korea; Taipei, China) are prime candidates. These can conceivably go ahead and push for deeper integration. They also have something in common: the so-called Confucian tradition. The rest, like the ASEAN, can try arrangements lower in the cooperative ladder. Convergence criteria can be set for still others to enter the monetary union later, which is how the expansion of Euroland to the East is envisioned. Euroland's experience shows that this "race to the union" has a tremendous salutary effect on candidate countries' economies.

2. One-Rung-at-a-Time

“Rome was not built in a day,” goes the saying and the incremental path, though perennially underappreciated, is the best way to go. The PRC’s incremental trek to the market economy, which contrasts starkly with Russia’s “Big Bang”, is a positive endorsement of incrementalism. In this regard, Williamson’s common basket peg or BBC is the next best rung in the cooperative ladder. Again, the multispeed strategy is in order.

3. Economic Versus Physical Geography

While political integration is largely based on physical geography, economic and monetary integration pays greater obeisance to economic geography. With physical distance shrinking and every wired point on earth becoming electronically equivalent by Internet distance, there is no reason that physically distant countries cannot be part of one currency union. If the OCA criterion on asymmetric shocks is met and some cooperative instrument serves up some fiscal federalism, one needs less factor mobility to ease idiosyncratic shocks. Contiguity need not be the deciding factor.

D. The Mundell-Fleming Imperative: The Debt Service Pass-through

If open capital accounts remain sacrosanct in every future monetary arrangement in East Asia, then it is imperative for sustainability that the Mundell-Fleming consistency rules be carefully observed. This would involve mechanisms that would reign in the temptation to abuse the remaining (and effective) fiscal instrument in a monetary union. This was the downfall of the classical gold standard and eventually the Bretton Woods system (see Section VI). The problem is not, as in those previous systems, the monetization of fiscal deficits, which directly plays into the hands of the Mundell-Fleming impossible trilemma but which is rendered unfeasible. The problem is overborrowing, rendered easier by the following: (i) a bigger financial market to draw from; (ii) on, for the same reason, cheaper terms; and (iii) greater credibility due to union membership. The lesson of the Argentine crisis, coming as it did after the adoption of the currency board and subsequent overborrowing, looms very large.

Overborrowing in Mundell-Fleming with a unilaterally stabilized exchange rate peg raises domestic interest rates, and draws in capital until the risk of default sets in to nullify the interest arbitrage. This can happen as the economy approaches full capacity, which then reduces the incremental capacity to service incremental debt. The government in this case is really incurring foreign debt in the guise of domestic debt (which is virtually foreign in view of the peg) to finance fiscal spending. When the debt burden (in domestic money) becomes

very heavy due to the incapacity to raise further domestic resources through domestic taxes, the temptation to tax outsiders invested in domestic assets rises. Thus, the credibility of the peg tumbles and the system is in danger of collapse. This makes fiscal prudence a Mundell-Fleming consistency rule. This also explains the eventual collapse of the Gold Standard and Bretton Woods.

In a monetary union, overborrowing does have a similar system-threatening effect. When a member overborrows in common currency to an extent beyond its taxing power to service, it courts a default. If it defaults, it now threatens to tax foreign and union member holders of its common currency-denominated bonds or bills, which will force member countries to organize a package of rescue. Thus, it still taxes other members of the union. If no such package is forthcoming, it may default on its debt and other countries may be forced to finance a bailout (De Grauwe 2000). If no bailout ensues, the member may *opt-out* in order to institute an exchange rate consistent with the debt and, with a devaluation, grab market share from its neighbors, thus, earning foreign exchange to service the debt. In a more circuitous way, it passes on the burden partly to other member countries. Thus, prudential rules on fiscal behavior, such as the “Growth and Stability Pact” in the EMU, are imperative in the Mundell-Fleming sense. This prevents, not the monetization of fiscal deficits, but the moral hazard-bearing “debt-service pass-through.”

We discuss in the next section how the Mundell-Fleming consistency rules, whether observed in compliance or in breach, impacted on the fates of previous international monetary arrangements.

VI. INTERNATIONAL MONETARY ARRANGEMENTS AND THE MUNDELL-FLEMING CONSISTENCY RULES: LESSONS FOR EAST ASIA

We present a brief review of the last century’s international monetary arrangements and the lessons they serve up to current efforts toward the monetary architecture of the 21st century, including monetary cooperation in East Asia. Our evaluation of competing arrangements for cooperation East Asia was heavily informed by these experiences.

A. The Classical Gold Standard

A hundred years ago, few questioned the supremacy of the gold standard and fewer still seriously dared propose an alternative. The notable exception was the Norwegian economist Knut Wicksell who in 1898 published the classic *Interest and Prices*, attacking the tyranny of the gold standard. As the first truly global monetary arrangement, the gold standard had, after all, for the past 50 years performed remarkably well in the core European countries, although rather less well

in periphery countries especially in Latin America. It had the well-known deflationary bias but it was really the only game in town.

1. Features

The gold standard exhibited the following features (see, e.g., Eichengreen 1994):

- (i) free convertibility of the domestic currency into gold at a fixed parity;
- (ii) free flow of gold shipments and other capital assets across borders;
- (iii) the initial parity was set independently by participating countries;
- (iv) exchange rates stayed in a virtual target zone defined by “gold points” (a “band” defined by transactions cost of gold shipment, freight, and risk insurance);
- (v) monetary policy was anchored purely on maintaining the fixed parity, i.e., money supply was strictly limited by gold reserves, a system dedicated to “hard money”;
- (vi) temporary suspension of convertibility when under severe pressure;
- (vii) regime-preserving cooperation (Kenen 1990) involving direct lending of gold or discounting bills among core countries in case of distress was informally observed;
- (viii) enforcement mechanism was the specie flow; irresponsible behavior was punished by gold outflow; and
- (ix) in practice, silver was also used in lieu of gold.

2. Benefits

- (i) The gold standard together with steam transport presided over the explosion of global trade and investment for five decades from 1860-1913, the so-called “belle époque” (Williamson 1997). It did so by maintaining a stable and predictable system of exchange rates, which greatly facilitated trade and investment. The economic miracle of Post-Meiji Japan (1870-1900), anchored as it was on global trade and investment, can be partly traced back to the gold standard and its facilitation of comparative advantage (Fabella 2001).
- (ii) Countries were forced to operate by the principle of comparative advantage. Argentina became rich exporting beef and wheat.

3. Cost

- (i) As the gold standard facilitated global trade, countries were forced by comparative advantage to specialize, which meant a decimation or even annihilation of many traditional industries (textile weaving in Japan gave way to cheap textiles from Bombay and Manchester).
- (ii) Since the gold standard was a unilateral exchange rate stabilization regime, devaluations were often resorted to, not only to respond to fundamental disequilibrium but for predatory beggar-thy-neighbor and mercantilistic objectives.
- (iii) The gold standard had a second obvious flaw. Since global liquidity depended on gold supply, and this was not growing apace with global transactions, the gold standard fostered a global price deflation.

4. Sources of Success

Feature (5), providing a temporary escape clause, and Feature (6), providing an episodic rampart against exit during exceptional circumstances, gave the gold standard a flexibility, which allowed it to withstand adverse market pressures (Eichengreen 1994). But there were other more compelling reasons for its success in the core European countries.

a. The Core Europe

- (i) The whole second half of the 19th century was remarkable for the laissez-faire attitude that governments adopted with respect to their domestic economies. It would not be too far-fetched to say that within their domestic political borders, governments acted like the Smithian state: they got busy providing the scaffoldings of national progress and power such as railroads, sea ports, and rule of law, and allowing the market a lot of (some say “too much”) operating room. Governments generally operated by the “balanced budget” rule and the public sector was relatively small. Tax revenues required to finance the scaffoldings of progress were boosted by rents generated by the “imperialist enterprise,” which was, on the one hand, the ugly side of the belle époque, and on the other, what kept governments busy and removed from domestic market meddling (see also Streeten 2001). Thus, overall fiscal policy was very conservative (Eichengreen 1994).
- (ii) The link between domestic economic outcomes, such as unemployment and monetary policy was not yet clearly understood. The

- temptation to use money supply to alter domestic economic outcomes was discouraged by the “quantity theory of money”, which related money supply only to prices (Skidelsky 1996). This resulted in largely unpoliticized and, therefore, credible monetary policy.
- (iii) The gold standard itself was a monetary arrangement that every pedestrian observer or citizen would consider intuitive and reasonable: the amount of paper money in circulation was backed by gold reserves and this meant that money supply was removed from any discretion. It was a thoroughly rule-based monetary policy. Convertibility into gold made the money one held valuable. Tamper with money supply and the paper in one’s pocket stood for less (in gold). The combination of fiscal restraint and consistent popular expectation meant that monetary authorities had tremendous credibility in its commitment to hard money.
 - (iv) The right of suffrage was either absent or limited, implying that the constituency against the cost of macroeconomic fluctuation and adjustment, such as unemployment and falling nominal wages (inflation not being yet a problem) in a largely deflationary world was weak (Eichengreen 1994). Furthermore, labor unions were only a gleam in some people’s eyes. Such supply side spectacles as the Matsukata deflation in Japan in the 1880s were possible without intolerable social unrest if with considerable suffering for the poor.
 - (v) Borders were open and migration was the most resorted-to coping strategy. Citizens boarded steamships and moved across oceans rather than challenge the local authorities over domestic policies, a fact which diffused really potentially explosive adjustment situations (Williamson 1997, Streeten 2001).
 - (vi) As long as money wages were downwardly flexible in view of (iv), the deflationary bias of the gold standard can be managed.

The ingredients for the success of the gold standard in Europe fitted in well with Mundell-Fleming rules. Open capital accounts, fixed exchange rates, dedicated and credible monetary policy, fiscal conservatism, and high social tolerance for real sector adjustments—these constituted a consistent set of circumstances in the Mundell-Fleming paradigm. Fiscal policy, the instrument of adjustment in this case, would be effective at raising output and employment but only where the economy is at less than full capacity. When wages are flexible, near full employment is more likely and fiscal activism only results in disruptive inflation that threatens the peg. The economic environment confirmed largely the quantity theory of money.

b. Periphery

Why did the gold standard work less well in the periphery? The evidence of this was the frequent suspension of convertibility in Latin America (Eichengreen 1994). In Latin America, fiscal restraint was the exception rather than the rule. Budget deficits were repeatedly monetized and convertibility had to be continuously suspended. Both in Latin America and the US, landowners who exported pined for greater domestic revenue per unit of export. The Civil War and consequent fiscal pressure threatened the US commitment to the gold standard. War would continuously challenge the fiscal resolve of member countries.

c. Collapse

Why did the gold standard finally collapse? The turn of the century ushered in what the British Broadcasting Company aptly termed “People’s Century”. The working class began to flex its muscles in earnest. Revolutionary fervor had erupted and, in Russia, it made a violent turn. Suddenly, painful real sector adjustments can no longer be as easily hung on the shoulders of the poor and the workers. The capacity of the gold standard to absorb market pressures slowly eroded. While wars have always threatened the gold standard (e.g., US Civil War), the First World War forced warring governments to violate every and all fiscal limits by running the printing presses, which broke the back of the system in Europe.

After World War I, governments all over the world, forced progressively to give up activism in the imperialist front, began to reject *laissez faire* in favor of expansionist activism in the domestic front to cope with growing unemployment and monetizing fiscal excesses was the main weapon. As people began to realize that the interest rate directly influenced unemployment and paper money need not be backed by gold reserves, a sure legacy of war, the clamor for aggressive monetary policy began and the unpoliticized and credible monetary policy ended. As nominal wages became inflexible, inflation became a weapon to reduce the real wage and reduce unemployment. The lesson in reverse was brought home in the UK, which returned to the gold standard in 1925, implying a revaluation of the pound sterling, which was deflationary. The unemployment that followed as the UK lost competitiveness and nominal wages would not fall triggered The Great Strike of 1926 (Skidelsky 1996). J.M. Keynes’s ideas of the 1930s acquired a real world niche as the gold standard lost its moorings.

d. Lesson

The gold standard was evidence that a pegged exchange rate system is viable given favorable and consistent circumstances and expectations and on con-

dition that the Mundell-Fleming rules are abided by. In five decades to 1900, this was the case. It was largely an uncoordinated Nash equilibrium with states latching on to it as a way of getting on the global trading superhighway. When the political circumstances began to shift engendering inconsistencies, the system began to totter and fall.

e. Aftermath

The post-World War I monetary arrangement consistent with new and confused realities involved first the floating rate system that freed monetary policy to target domestic goals and enshrined it as a political instrument. For a while, it seems that monetizing the fiscal deficit was the very anchor that it was designed to target, and rampant price inflation and even hyperinflation was the harvest.

The new gold standard that replaced the floating rate system, which the UK embraced in 1925, faced the same contradictions that the old one did in its dying days—a highly politicized monetary authority and a diminished real sector adjustment capacity. With the onset of the Great Depression, the strains became unbearable and it collapsed in 1931. The aftermath, still plagued by unemployment, became prey to beggar-thy-neighbor devaluations and mercantilist interventions. Western countries and their trading partners plumbed the depths of unemployment and misery. This was the long shadow that the Great Depression would cast on subsequent developments.

B. The Bretton Woods Agreement

The chaos of the 1930s made a new global monetary system imperative and the end of World War II with the unquestioned dominance of the US economy gave the idea impetus. The gold-dollar standard, also known as the Bretton Woods system was adopted in July 1944. It largely reflected the Keynesian world view, although the formal structure was more the Harry Dexter White plan than Keynes' Clearing Union (Boughton 1998).

1. Features

- (i) The US dollar was the anchor currency; it was pegged to gold and thus was, in theory, convertible to gold. The US was to maintain a level of gold reserves against its money supply multiplied by the dollar's gold content defined on 1 July 1944.
- (ii) Member countries declared par values of their currencies against the US dollar (and a priori against gold) and agreed to maintain these par values within a plus or minus one-percent band.

- (iii) Member countries maintain reserves in US dollar (which, in theory, was convertible to gold).
- (iv) In cases of “fundamental disequilibrium”, countries can abandon parity with the US dollar provided: it consulted with the IMF; (b) obtained its agreement on the course of action; and became ineligible to Fund resources in case of nonconcurrence by the IMF. The IMF was thus the lynchpin for international monetary cooperation.
- (v) The IMF was mandated to support currencies under attack. Member countries could draw up to 125 percent of their subscribed quotas in their own currencies and in gold. Drawings were governed by conditionalities and repayment period was three to five years. To bolster the distress-coping mechanism, standby arrangements for financial assistance could be obtained in advance of a crisis.
- (vi) Other off-IMF ancillary mechanisms (the Basle Agreement, the London Gold Pool, the General Agreement to Borrow, SDR) were established to support participating currencies in distress.
- (vii) Capital mobility was limited and capital controls by domestic economies was not only allowed but encouraged. Thus, the current and capital account were largely regulated. This reflected the Keynesian bias toward the deployment of fiscal deficits to pursue full employment.
- (viii) A seigniorage problem that becomes acute when the anchor currency (US dollars) weakens is a permanent and corrosive feature.

2. Benefits

The Bretton Woods System, together with the General Agreement on Trade and Tariffs (GATT), paved the way for the post-World War II recovery of world trade and economic reconstruction that was unprecedented in history in speed and scope. Meant to exile the chaos and predation of the 1930s, it worked very well indeed for two decades after its inception. The predictability, which became once again the hallmark of the world monetary system, was known only during the time of the classical gold standard. It was for some (Streeten 2001, *The Economist* 1999) another monetary golden age. How the Bretton Woods system worked so well for those years deserves comment.

While both the Gold Standard and Bretton Woods underpinned rapid world trade growth, Bretton Woods was less conducive to the operation of the Law of Comparative Advantage than was the Gold Standard. The reason was Bretton Woods’ encouragement of capital controls, which, by staying the hand of Mundell-Fleming’s impossible trinity, allowed monetary policy, despite the peg, some free space to target domestic goals. This latter was predominantly “industrialization” in the import substitution sense in LDCs. In the recovering developed

countries, this took the form of the capture of “the commanding heights” of the economy through nationalization and public ownership (Yergin and Stanislaw 1998). The weapon was, once more, monetized fiscal deficits.

The Second World War was generally viewed as the empirical vindication of the Keynesian revolution (Skidelsky 1996). It showed that full employment could be achieved through fiscal activism without inflation. The postwar period was therefore dominated by *full*-employment as the principal state goal in the West exemplified by the Employment Act of 1946 in the US and rapid industrialization in the third world countries. Keynes’ *The General Theory of Employment, Interest, and Money* (1936) focused on the relation between monetary policy and output and employment. The classical quantity theory of money of Marshall, by contrast, related money to prices but *not* to employment. Full employment became viewed as the state’s principal preoccupation now that the war mobilization had shown it to be doable and Keynes had shown precisely how to do it without inflation. Why not, indeed, in peacetime?

The collapse of industry and infrastructure and the demobilization of millions of fighting men after the war was clearly a fertile ground for Keynesian deficit finance to work its magic no less than the prostrate landscape of the prewar depression was pregnant soil for war-related fiscal activism. The fiscal activism in the service of infrastructure restoration was not only demand-pulling but also supply-pushing in this circumstance. Thus, it could not manifest itself in rising prices until the perceived full capacity, proxied by prewar levels, is reached. Consequently, a combination of perceived excess capacity and the residue of war psychology abetted by an aversion for unemployment muted the impact of monetized fiscal deficits during the reconstruction and recovery. Both came to an end by the 1960s.

3. Causes of Collapse

The Bretton Woods System collapsed in 1971 when the US rescinded the convertibility of the US dollar into gold. The demise had multiple parentage:

- (i) The Viet Nam War triggered the breaching of fiscal restraint in the US, which led to inflation and to the weakened US dollar. By contrast, the Truman and Eisenhower Administrations were fiscal conservatives. This led to doubts about one of the pillars of Bretton Woods—the convertibility of the US dollar, which was the anchor currency.
- (ii) The convertibility of the US dollar was itself at the heart of the Triffin Paradox (Triffin 1957). The world needed more liquidity to accommodate rapid postwar growth. In the Bretton Woods system, this meant more US dollars and a priori more gold reserves, which

- was seriously lagging behind. This was a principal drawback that Bretton Woods shared with the classical gold standard. If the requisite dollars were to be made available, without proportionate rise in gold reserves, the dollar convertibility will erode. More dollars led to soft dollars.
- (iii) The worries about the stability of the US dollar also raised the issue of seigniorage, which the US owned as the source of the anchor currency. This was not a problem as long as the US dollar was strong as it was under Truman and Eisenhower, who were fiscal conservatives (Skidelsky 1996). When the US dollar weakened, questions arose. The US can reduce claims against itself denominated in dollars by simply printing more of greenbacks. Charles de Gaulle of France called this the United States' "exorbitant privilege" (Eichengreen 1994). France itself tried several times to convert its dollar holdings into gold.
 - (iv) At the same time, the mobility of capital across borders was growing despite the controls (Obstfeld 1993), suggesting a growing inconsistency with activist monetary policy in aid of activist fiscal policy and the peg to the dollar. The credibility of monetary authorities in thrall to political authorities was low. This confluence of forces became acute two decades after the Bretton Woods Agreement.
 - (v) The end of the reconstruction period meant that the fertile ground for fiscal activism was running into intensive margins. The scaffoldings of the European welfare state, labor protection, and near full employment in the late 1950s meant that the money-price nexus of the quantity theory of money was beginning to take hold. Fiscal deficits meant more inflation rather than more employment.
 - (vi) This led to doubts about the Keynesian orthodoxy and a growing influence of the monetarist critique led by Friedman (1967) who favored the float of the exchange rates.

Once again, the Bretton Woods system worked well as long as the Mundell-Fleming consistency rules were followed. When these rules were violated, the system fell.

C. Precursor of the EMU: The European Monetary System

In 1979, the EEC heads of state and the European Council established the EMS, which, through the Exchange Rate Mechanism (ERM), governed exchange rates in Europe until 31 December 1999. The EMS era can be divided into two: the "hard" EMS from 1979 to 1993 (see also De Grauwe 2000) and the "soft" EMS from 1994 to 1999.

1. Features of the Hard EMS

Each member country, in agreement with other members, adopted its exchange rate's central parity against every other member country's currency and pledged to keep it within a target zone of ± 2.25 percent (6 percent for later entrants, such as Italy). In practice, this multilaterally agreed parity was against accounting money called the European Currency Unit (ECU).

The ECU was a weighted average of all the member country currencies, i.e., $ECU = \sum Q_i W_i$, where Q_i is the fixed unit of i 's currency in the basket, W_i is the weight of i 's currency in the basket, and where $W_i = (Q_i/E_i)$. Now $E_i = \sum S E_{i,j} Q_j$, where $E_{i,j}$ is the bilateral exchange rate between i and member j . E_i is the value of the ECU in terms of i 's currency, which is variable over time (Dorruci 2001).

Alteration of the central parity was allowed, in principle, but required the agreement of all members who decide if the adjustment is required by balance-of-payments disequilibrium.

It inherited the "snake's" Very Short Term Financing Facility (VSTFF) to enable members with weak currencies to borrow from members with strong currencies.

When a currency weakens and tests the ceiling of the zone against another member's currency, both countries are expected to intervene. When the French franc weakened in 1982 against the deutschmark, the French franc was devalued and the deutschmark revalued to keep the French franc in the EMS (Yergin and Stanislaw 2000).

Capital controls were maintained, though rather loosely, and transparently (e.g., taxes on holdings of foreign currency assets). France and Italy maintained restrictions on capital mobility. This limited the play of the impossible trinity. Then, from 1989, capital controls began to be abolished in the wake of the Single European Act of 1987, drafted to usher a single market in goods, labor, and capital in Europe.

The target zone, within which currencies floated, allowed some monetary policy autonomy for individual members.

2. Costs and Benefits

Compared to the confusion of the largely unilateral exchange rate stabilization of the 1970s, the hard EMS succeeded in its mission to establish "a zone of monetary stability in Europe." But this was partly due to the existence of capital controls.

In time, the deutschmark effectively became the anchor currency of the ERM since the deutschmark was backed by the strongest economy in Europe and a credible monetary policy that targeted inflation. In effect, the deutschmark was independently floating against other major currencies as dictated by the famous

n-1 problem, which states that only (n-1) exchange rates of n can be fixed (de Grauwe 2000). This meant that if the deutschmark appreciated against the yen and the dollar, which occurred after the Plaza Accord in 1985, other European countries also lost competitiveness—part of the reason was that the other member countries began to suffer current account deficits, which led to the ERM crisis in 1992-1993. But there were other reasons for the collapse.

3. Why the Collapse?

The abolition of capital controls by the Single European Act allowed the full force of the impossible trinity to bear on the ERM, which then became progressively inconsistent. When, as a result of German unification, the deutschmark strengthened further as a response to high German interest rates and the now open capital account, the strain became too heavy in 1992-1993 and the hard EMS collapsed. Italy and the UK were forced out of the EMS in 1992.

German unification and its monetary management (*viz.*, the one-to-one exchange between the deutschmark and the ostmark) forced a fundamental fiscal imbalance that could not be accommodated within the zone that the initial parities adopted in EMS I. Note that the German Bundesbank under Otto Pohl opposed the one-to-one exchange as incompatible with the Bundesbank's role of anchor currency issuer (Yergin and Stanislaw 1998).

The collapse of the hard EMS paved the way for soft EMS.

4. Features of the Soft EMS

The aftermath of the 1992-1993 crisis saw the ERM target zone for the remaining countries widen to ± 15 percent. This became known as the "soft" ERM.

The European Monetary Institute (EMI) was established in 1994 to shepherd the second stage of the movement to the EMU (the first stage being husbanded by the Single European Act of 1986). The EMI was envisioned to morph into the European Central Bank in the event of the EMU.

The Maastricht Treaty of December 1991 established the convergence criteria on inflation, interest rate, exchange rate stability, and sustainability of fiscal position, *viz.*, the public debt and deficit ratios for inclusion into the single currency club. The convergence criteria became inextricably associated with EMS II.

5. Benefits

The wider band meant a greater capacity to diffuse market pressures. The parity realignment meant a factoring in of the new German reality. The immedi-

ate concern was that the greater integration envisioned in the Maastricht Treaty may be jeopardized if greater exchange rate volatility ensued. The greater volatility never materialized and, indeed, volatility after the soft ERM was as good, if not better, than before. The reasons were:

The general economic growth situation was vigorously upward, which improved the fiscal deficit picture everywhere (Chabot 2000).

The overall effort to meet the Maastricht criteria created an environment of robust monetary policy, which limited exchange rate volatility. Thus, the macroeconomic environment was once again congenial to the Mundell-Fleming consistency rules.

The soft ERM successfully paved the way for the EMU.

D. The Plaza-Louvre Accords

The post-Bretton Woods era was one of monetary confusion. In 1972, after a period of free float, the EEC established the “snake in the tunnel” system, which involved holding EEC exchange rates within narrow bands, with the US dollar as anchor currency. It also created the “Very Short Term Financing Facility” (VSTFF) to help support member currencies in distress. This, however, collapsed in 1973. The first oil price explosion and the countercyclical response may also have something to do with its demise as the narrow bands could not be sustained. After the “snake”, countries struggled to stabilize their exchange rates unilaterally and a period of heightened volatility followed.

In the early 1980s, the dollar, yen, and deutschmark were allowed to float against each other. The dollar rose precipitously due to the determined anti-inflation assault by the Volcker’s Federal Reserve System. The turmoil led to a meeting in September 1985 where the G-5 countries agreed to cooperate toward the depreciation of the US dollar. The yen rose from Y245 to Y145 to a dollar by 1987. The Louvre Accord in February 1987, judging the dollar depreciation sufficient, then established an exchange rate stabilization system. The currencies’ current levels were to be held within a reference range: a narrow margin of $\pm 2.5\%$, beyond which individual country intervention is to be made and a wider band of $\pm 5\%$, beyond which countries were obligated to intervene in concert to restore parity. However, disagreements over the size of the US budget deficit and the stock market collapse in October 1987 (which forced the Fed to lower interest rate, thus, further weakening the US dollar), led to the accord’s demise (Eichengreen 1994).

Once again, conflicting interests, i.e., Germany’s pursuit of a strong Deutschmark implying a higher German interest rate and US stabilization imperative, in the face of rapid capital mobility and open capital account planted Mundell-Fleming inconsistency in the Plaza-Louvre Accord.

VII. CONCLUSION

Monetary cooperation in East Asia is in its infancy. Unilateral stabilization, still the rule, is now augmented by the Chiang Mai Initiatives (swap and repurchase arrangements) and cooperative surveillance and monitoring mechanisms. The exchange rate regimes of crisis countries appeared to have reverted somewhat to the *de facto dollar peg* of the precrisis era from initial float but with a big difference: The implicit bands appear to be much wider, allowing greater leverage against market pressure. This mimics the wider band of the “soft EMS” after the 1992-1993 ERM crisis, which was rather successful in the run-up to the EMU. The implicit weight attached to the US dollar may also have weakened with the Euro looming larger. The ease with which the oil price shock of 2000 was handled attests to the relative robustness of the new arrangement. It still has many drawbacks, which later may become critical. It is vulnerable to US dollar appreciation. Being unilateral, it is subject to “competitive devaluations.” With greater flexibility comes greater elbow room for monetary activism, which has historically been the source of breaches of the Mundell-Fleming rules.

Proposals for more cooperative monetary arrangements have been made. Some of them are viewed as transitory to the more ambitious monetary integration, the Asian Monetary Union. Among these proposals, the Williamson common basket peg or BBC has attracted the most comment and commendation. It seeks to correct one drawback of the current arrangement, viz., vulnerability to realignments among major currencies. In the process, it whittles down the room for competitive devaluations. The only political hurdle involves subscription to a common set of weights that involves a surrender of idiosyncratic exchange rate response to shocks. The Asian Monetary System proposal, closest to the European “soft EMS,” has the advantage of a good track record as a transition to a monetary union. It also involves greater cooperation and surrender of national sovereignty, and thus greater political will among members. Members have to give up unilateral stabilization with multilateral determination of central parity and the width of a target zone. It is vulnerable to major currency movements. The “Yen block” proposal mimics the later stage of the “soft EMS” when the Deutschmark became the virtual anchor. It has also the drawback of being vulnerable to major currency realignments. But the major stumbling block is the current troubled state of the Japanese economy and financial sector.

Then there is monetary union. One can argue on pure economic calculus that some strict subsets of East Asia are obvious OCA candidates. That their credentials are as sterling as Euro zone’s eleven is borne out by a review of the evidence on various OCA criteria for East Asia. As in the case of the EMU, which is the paramount trigger and model of monetary union without political union for East Asia, it is the collective political will of members that will drive the union. The Euroland’s unfair advantage for the EMU is highlighted against

East Asia's drawbacks, mainly stemming from its unparalleled developmental, financial, sociocultural, and political diversity. The pursuit of a monetary union need not be stumped by this diversity. If there is any lesson to be learned from the long journey to the EMU, it is the ample benefits accruing to the members in the cooperative pursuit itself.

The pursuit architecture should, however, reflect East Asia's reality. It should, for one, be multispeed, incremental, and dictated by economic rather than physical geography. Most of all, it must adopt mechanisms that safeguard fidelity to the Mundell-Fleming imperatives. Global monetary arrangements in the past 150 years have prospered or collapsed to the extent in which they observed these rules either in compliance or in breach.

While the hurdles seem formidable for now, East Asia has a proven capacity "to compress time" (Madhur 2001). Post-Meiji Japan took only 40 years to become a confirmed superpower and confound the collectively shared Western sentiment on its prospect in the 1870s (*The Currency of Japan* 1881 as quoted in Allen 1962).

Wealthy we do not think it will ever become: the advantages conferred by nature with the exception of climate, and the level of indolence and pleasure of the people themselves forbid it. They are a happy race and being content with little are not likely to achieve much.

The Asian tigers, including Korea, whose prospects another famous Western observer, Gunnar Myrdal, grossly devalued, made OECD standards in 40 years. The PRC has taken only 20 years to astonish the world.

Better to heed the advice (as quoted by Yergin and Stanislaw 1998, 124) of one very astute Western punter, the Iron Lady Margaret Thatcher, who improbably changed the course of the UK's history: "The unexpected happens; you had better prepare for it."

APPENDIX

Table 1. East Asian Forex Reserves Accumulation as Percent of GDP

Year	Korea	Hong Kong, China	Taipei, China	Thailand	Malaysia	Philippines	Indonesia	Singapore
1996	6.5	41.4	31.5	20.7	26.7	12.1	10.6	83.7
1997	4.2	54.3	32.7	17.3	20.8	8.8	9.6	85.2
1998	16.2	55.0	32.6	25.7	35.0	14.9	23.0	99.9
1999	17.8	60.5	35.9	27.5	37.7	17.3	16.2	89.3
2000	21.0	65.8	36.4	26.0	32.6	27.4	18.5	82.2
2001(f)*	23.5	...	...	28.2	32.6	19.1	19.2	...
2002(f)*	23.9	...	...	28.0	32.0	20.3	...	...

... means data not available.

*(f) forecast

Source: Park (2001).

Table 2. Shock Symmetry

Author	1 Supply (Magnitude)	2 Demand (Magnitude)	3 High Supply Shock Correlation	4 Trade Structure	5 Response to Δ REER	6 Trade Intensity	7 Trade Rivalry
1. Eichengreen and Bayoumi (1999)	(1.0) EU (1972–1989)	(0.5) EU (1972–1989)	Asean 4* J/SK/T \approx EU	Correl.coeff. \approx EU			High**
2. Williamson (1999)				\approx EU		>EU (1990)	
3. Goto and Hamada (1994)						>EU (1990)	
4. Kawai and Takagi (2001)				Asean + 3 Man/EX 80%	Price & Output High	>EU(1995) 47% total (including Japan) (1990-1998)	
5. Kwan (1998)				Correl.coeff. 0.46			
7. Bayoumi and Mauro (1999)						<EU (Asean)	
8. Oh and Harvie (2001)				Openness: 38% >EU=17.2%			
9. Plummer (2001)	High Cross Correlation of GDP; Rising (1960–1996)			EX correl. Coeff.=0.60 Malaysia, Singapore (high); Philippines, Indonesia (low)			

* Except Philippines and Thailand.

** 5 of 8 principal rivals in the region.

Correl. means correlation

Coeff. means coefficient

Acronyms: J/SK/T = Japan / South Korea / Taipei, China

IT / TT = Intraregional Trade / Total Trade

MAN / EX = Manufacturing Export / Total Export

> (<) = Better than (worse than)

Table 3. Factor Mobility / Speed of Adjustment / Development

Author	Factor Mobility	Speed of Adjustment	Finance Sector	Development* (Diversity)	Size* (Diversity)
1. Eichengreen and Bayoumi (1999)		(2 years) > EU (1972–1979)			
2. Goto and Hamada (1994)	High % (Labor)				
3. Moon et al. (2000)	FDI/GNP = 1.75 > 1.59 = EU				
4. Eichengreen and Bayoumi (1999)	High (Capital)		Very Diverse/ Fragile/ Opaque		
5. Kawai and Takagi (2001)				Very Large	Very Large
6. Bayoumi and Mauro (1999)		> EU (for Asean)			

*Asean + 3

Table 4. Aggregate OCA and Maastricht Indices

Author	1 Target Variable	2 OCA Index ^o (Williamson Basket)	3 OCA Index ^o (Bilateral)	4 OCA Criteria	5 Maastricht Criteria
1. Eichengreen and Bayoumi (1999)	ER Variability (Bilateral)	<0.09* (1976–1995)	>EU** (1976–1995)	Significant (1976–1995)	
2. Banassy-Quere (1999)	ER Variability (Bilateral)			Significant (1986–1995)	
3. Bayoumi and Eichengreen (1994)	ER Variability (Bilateral)		EU ₈₇ = (J/SK/T)		
4. Bayoumi and Mauro (1999)	ER Variability		EU ₈₇ > Asean ₉₅ > NAFTA MERCOSUR		
5. Oh and Harvie (2001)	Fiscal & Monetary (Maastricht)				Fiscal (good) Monetary (poor)

* Except for Indonesia.

** Except for Indonesia, South Korea, Philippines.

^o Bilateral ER Variability Explained by OCA Proxies.

REFERENCES

- Barro, R., 2001. "Currency Unions." Unpublished monograph.
- Barro, R., and X. Sala-i-Martin, 1995. *Economic Growth*. New York: McGraw-Hill, Inc.
- Bayoumi, T., 1994. A Formal Model of Optimum Currency Areas. IMF Staff Papers No. 41, International Monetary Fund, Washington, D.C.
- Bayoumi, T., and B. Eichengreen, 1996. "The Stability of the Gold Standard and the Evolution of the International Monetary System." In T. Bayoumi, B. Eichengreen, and M. Taylor, eds., *Economic Perspectives in the Gold Standard*. Cambridge: Cambridge University Press.
- Bayoumi, T., and P. Mauro, 1999. The Suitability of ASEAN for a Regional Currency Arrangement. Working Paper 99/162, International Monetary Fund, Washington D.C.
- Benassy-Quere, A., 1999. "Optimal Pegs for East Asian Currencies." *Journal of the Japanese and International Economies* 13:44-60.
- Blanchard, O., and D. Quah, 1989. "The Dynamic Effects of Aggregate Demand and Supply Disturbances." *The American Economic Review* 79:655-73.
- Boughton, J., 1998. "Harry Dexter White and the IMF." *Finance and Development* 35:39-41.
- Buiter, W., and A. Sibert, 1997. Transition Issues for the EMU. Working Paper 6792, NBER.
- Buti, M., 2001. "Implications of a Single Currency." Paper presented at the Seminar on Common Currency Arrangements and Exchange Rate Mechanisms in Asean, Kuala Lumpur.
- CEPR Bulletin, 2001. "Ireland in EMU." A report on a talk by Patrick Honahan.
- Collignon, S., 1999. "Bloc Floating and Exchange Rate Volatility: The Causes and Consequences of Currency Blocs." In S. Collignon, J. Pisani-Ferry, and Y. C. Park, eds., *Exchange Rate Policies in Emerging Asian Countries*. London and New York: Routledge.
- Cukierman, A., and F. Lippi, 2001. "Labor Markets and Monetary Union: A Strategic Analysis." *Economic Journal* III(473):541-65.
- Danthine, J. P., F. Giavazzi, and L. Von Thadden, 2001. European Financial Markets After EMU: A First Assessment. DP No. 2413, Center for Economic Policy Research, London.
- Debrun, X., 2001. "Bargaining Over EMU vs. EMS: Why Might the ECB be the Twin Sister of the Bundesbank." *Economic Journal* III:566-90.
- De Grauwe, P., 2000. *Economics of Monetary Union*. Oxford: Oxford University Press.
- Dorruci, E., 2001. "Pre-Conditions, Convergence Requirements and the Transition to a Common Currency." Paper presented at the Seminar on Common Currency Arrangements and Exchange Rate Mechanisms in Asean, Kuala Lumpur.
- Dyson, K., 1994. *Elusive Union: The Process of Economic and Monetary Union in Europe*. London: Longman.
- Eichengreen, B., and T. Bayoumi, 1999. "Is Asia an Optimum Currency Area? Can It Become One?" In S. Collignon, J. Pisani-Ferry, and Y.C. Park, eds., *Exchange Rate Policies in Emerging Asian Countries*. London: Routledge.
- Eichengreen, B., 1994. *International Monetary Arrangements for the 21st Century*. Washington D.C: The Brookings Institution.
- Eichengreen, B., 1996. A More Perfect Union? The Logic of Economic Integration. Essays in International Finance, International Finance Section, Department of Economics, Princeton University.

- Fabella, R., 2000. "The Texture of Competition in the First Decade of the New Century." In D. Canlas, and S. Fujisaki, eds., *The Philippine Economy: Alternatives for the 21st Century*. Tokyo: Institute of Developing Economics/Japan External Trade Organization.
- Feldstein, M., 1997. "EMU and International Conflict." *Foreign Affairs* 76:60-73.
- Frankel, J., and S. Wei, 1993. "Trade Blocs and Currency Blocs." In *The Monetary Future of Europe*. CEPR, La Coruña, Spain. Centre for Economic Policy Research, London.
- Goodhart, C., 1995. "The Political Economy of Monetary Union." In P. Kenen, ed., *Understanding Interdependence: The Macroeconomics of the Open Economy*. Princeton: Princeton University Press.
- Grüner and Hefeber, 1999. "How Will EMU Affect Inflation and Unemployment in Europe?" *Scandinavian Journal of Economics* 101:33-47.
- International Monetary Fund, 2001. "International Experience with Common Currency Arrangements." Paper presented at the Seminar on Common Currency Arrangements and the Exchange Rate Mechanism in Asean, 6-7 August, Kuala Lumpur.
- Kampeter, W., 2000. "Lessons of the European Integration." International Policy Analysis Unit, Friedrich Ebert Stiftung.
- Kawai, M., and S. Akiyama, 2000. "Implications of the Currency Crisis for Exchange Rate Arrangements in Emerging East Asia." Paper presented at the Seminar on Exchange Rate Issues in an Environment of Volatile Capital Flows, Seacen, Kuala Lumpur, Malaysia.
- Kawai, M., and S. Takagi, 2001. "Proposed Strategy for Regional Exchange Rate Arrangement in Post-Crisis Asia." Unpublished.
- Kenen, P., 1990. "The Coordination of Macroeconomic Policies." In W. Branson, J. Frenkel, and M. Goldstein, eds., *International Policy Coordination and Exchange Rate Fluctuations*. Chicago: University of Chicago Press.
- Keynes, J. M., 1936. *The General Theory of Employment, Interest, and Money*. London: MacMillan.
- Kwan, C. H., 1998. "The Theory of Optimum Currency Areas and the Possibility of Forming a Yen Bloc in Asia." Nomura Research Institute. Mimeo.
- Madhur, S., 2001. "Costs and Benefits of a Common Currency for the Asean." Paper presented at the Seminar on Common Currency Arrangements and Exchange Rate Mechanisms in Asean, Kuala Lumpur, 6-7 August 2001.
- McKinnon, R., 2000. "The East Asian Dollar Standard: Life After Death?" *Economic Notes* 29:31-82.
- Moon, W. S., Y. Rhee, and D. R. Yoon, 2000. "Asian Monetary Cooperation: A Search for Regional Monetary Stability in the Post Euro and the Post Asian Crisis Era." *Economic Papers* 3(1):159-93.
- Mundell, R., 1961. "A Theory Optimum Currency Areas." *American Economic Review* 51:657-64.
- , 1963. "Capital Mobility and Stabilization Policy Under Fixed and Flexible Exchange Rates." *Canadian Journal of Economics and Political Science* 29:475-85.
- Obstfeld, M., 1993. "The Adjustment Mechanism." In M. Bondo and B. Eichengreen, eds., *A Retrospective on the Bretton Woods System*. Chicago: University of Chicago Press.
- , 1998. EMU: Ready or Not? Essays in International Finance # 209, Department of Economics, Princeton University.
- Park, Y. C., 2001. "Beyond the Chiang Mai Initiative: Rationale and Need for a Regional Monetary Arrangement in EA." Unpublished monograph.

- Plummer, M., 2001. "Monetary Union and Asian." Paper presented at the International Conference on Trade and Monetary System in Asia-Pacific, Kobe, Japan, February 2001.
- Rose, A., 2000. "One Market, One Money: The Effect of Common Currencies on Trade." *Economic Policy* 2000:7-16.
- Servan-Schreiber, J. J., 1968. *The American Challenge* with a Foreword by Arthur Schlesinger, Jr. New York: Atheneum.
- Sibert, A., and A. Sutherland, 2000. "Monetary Union and Labor Market Reforms." *Journal of International Economics* 51(2):421-35.
- Skidelsky, R., 1996. *Keynes*. Oxford: Oxford University Press.
- Streeten, P., 2001. "Integration, Interdependence and Globalization." *Finance and Development*.
- The Currency of Japan*, 1881. A reprint of articles and reports published by the *Japan Gazette*, 1982; also in G. C. Allen, 1962, *A Short Economic History of Modern Japan*, London: George Allen and Unwin Ltd.
- The Economist*, 1999. "The 20th Century: Survey." 11 September.
- Triffin, R., 1957. *Europe and the Money Muddle: From Bilateralism to Near-Convertibility: 1947-1956*. New York: Yale University Press.
- Williamson, O., 1997. "Globalization and Inequality, Past and Present." *World Bank Research Observer*.
- , 1999. "The Case for a Common Basket Peg for East Asian Currencies." In S. Colignon, J. Pisani-Ferry, and Y. C. Park, eds., *Exchange Rate Policies in Emerging Asian Countries*. London and New York: Routledge.
- Yergin, D., and J. Stanislaw, 1998. *The Commanding Heights: The Battle Between Government and the Marketplace That is Remaking the Modern World*. New York: Simon and Schuster.