

Fostering Monetary and Exchange Rate Cooperation in East Asia
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1. Introduction

Leaders in East Asia are consistent in calling for cooperation to stabilize exchange rates.¹ Their call is heard in periods of slow growth and periods of rapid growth. It is advanced when the yen is weak and when the yen is strong. Though heard prior to the financial crisis of 1997-8, their case gained additional adherents as a result of that episode and its repercussions. And the argument for the cooperative management of exchange rates continues to be advanced despite persistent skepticism outside the region.

One cannot help but be reminded of the importance that European officials attached to exchange rate stability in the second half of the 20th century.² Efforts to deepen monetary cooperation in order to facilitate the transition to a single currency were evident in Europe already in the 1950s.³ They were rooted in memories of a financial crisis that destabilized currencies, fanning economic and political tensions; European leaders concluded that stabilizing exchange rates was essential for preventing the recurrence of similarly destructive events. Support was fostered by the growth of intra-regional trade as Europe's economies recovered from World War II and then by successive trade agreements, starting with the Common Market of the Six. The

¹ In this paper I sometimes refer to Asia rather than East Asia for ease of exposition. In either case I should be understood to mean the ASEAN+3 countries (ASEAN plus China, South Korea and Japan). In some contexts, that of the Chiang Mai Initiative for example, it may make sense to include also Australia and New Zealand under the big tent.

² Not least in the skepticism with which outside observers similarly viewed Europe's integrationist initiatives (recall how many non-European economists doubted that the euro would ever be created).

³ The issue had already been raised by American Marshall Plan administrators in the second half of the 1940s. It was then kept alive by Paul-Henri Spaak in discussions of the Treaty of Rome, by Robert Marjolin and Pierre Uri in the agencies of the European Economic Community, by Robert Triffin in the halls of academia, and by Jean Monnet through his Action Committee for the United States of Europe.

movement was lent impetus by the instability of the dollar, previously the anchor for the region's currencies, following the breakdown of Bretton Woods. The result was a series of initiatives to promote exchange rate stability and an eventual transition to monetary union: the Werner Report, the Snake, the Snake in the Tunnel, the European Monetary System (EMS), and finally the euro. It is not hard to see analogous factors in the push for monetary and exchange rate coordination in Asia, from memories of financial crisis to the growth of intra-regional trade and the instability of the dollar. And it is not surprising in this light that more than a few observers have suggested emulating Europe's example.

But one should not ignore respects in which Asia is different. Financial markets are substantially deregulated and open to international capital flows, something that was not the case in Europe as late as the 1980s. Stabilizing currencies is more difficult in this environment of high capital mobility. In addition there is not the same degree of political solidarity as prevailed in Europe. There is a greater reluctance to pool sovereignty, in turn making it more difficult to create transnational institutions of monetary governance akin to the European Central Bank. And where European monetary integration took place in a world in which pegging was the norm, countries today are moving away from exchange-rate-centered monetary policy strategies. This reflects an alternative framework, inflation targeting, that did not yet exist in this earlier period. It reflects the existence of financial markets and instruments with which exchange risk can be hedged, easing life with flexible rates. Whatever the explanation, exchange rate stability and monetary stability are not regarded as synonymous to the same extent as in Western Europe in the second half of the 20th century.

These differences suggest that efforts to foster monetary and exchange rate cooperation will have to proceed differently in Asia. They must accommodate the reality of capital mobility. They will have to acknowledge the existence of different political constraints. And they should capitalize on the existence of new approaches to the conduct of monetary policy.

These observations provide points of departure for thinking about three approaches to encouraging monetary cooperation in the region: exchange rate pegging, a parallel regional currency, and harmonized inflation targeting. In what follows I describe these options and evaluate them relative to the three aforementioned criteria: robustness with respect to capital mobility, compatibility with prevailing political circumstances, and congruence with modern ideas about the conduct of monetary policy.

To anticipate my conclusions (as those who know my own prior work on this subject presumably will have already done), I find the exchange-rate centered option problematic on all three grounds. While the parallel currency approach has more appeal, it is unlikely to provide the desired level of stability over what could be a very long transition to a regional currency. Harmonized inflation targeting is the best option for delivering monetary and exchange rate stability and laying the groundwork for monetary integration while respecting the prevailing financial, political and technical constraints.

2. Exchange-Rate Centered Options

The East Asian miracle has long been associated with stable, competitively-valued currencies. The yen was pegged at 360 to the dollar for more than two decades, coincident with Japan's high-growth era. More recently the renminbi has been linked to

the dollar, a policy that has helped to sustain China's remarkable economic growth. These are only two prominent examples of a general phenomenon. East Asian economic growth has been export led, and a stable and competitively valued exchange rate has been integral to that process. The result is a tendency, understandable in the circumstances, to associate exchange rate stability with economic growth and to view the former as a prerequisite for the latter.

Traditionally, stability meant stability against the dollar. Recently, however, this association has grown problematic. With the dollar fluctuating against other major currencies, stability vis-à-vis the dollar no longer guarantees stability vis-à-vis East Asia's leading extra-regional markets. With the growth of capital mobility, stabilizing against the dollar means that regional monetary conditions are set in Washington, D.C., even though the policies that the Federal Reserve deems appropriate for the United States may not be suitable to the very different circumstances of Asia.⁴ With the growth of the U.S. current account deficit, the failure of currencies like the renminbi to adjust more rapidly against the dollar raises the specter of protectionism in the U.S. Congress. The prospect of a decline in the effective exchange rate of the dollar as part of the adjustment needed to narrow the U.S. current account deficit points up these dangers. It augurs instability vis-à-vis other currencies like the euro. It raises risks of inflation and overheating as Asian exports are rendered more and more competitive on international markets. It invites a protectionist backlash in the United States.

⁴ Mid-2007 is a case in point: while U.S. economic growth appears to be slowing, East Asian growth, led by that of China, appears to be accelerating.

The obvious alternative is pegging to a basket. There has been no shortage of proposals for doing so.⁵ And, not surprisingly, some Asian economies have been moving in this direction.⁶ Basket pegging links East Asian monetary conditions to the state of the world economy rather than just to economic conditions in the United States. It leaves scope for adjustment against the dollar to help correct global imbalances and defuse trade tensions without undermining export competitiveness. Acknowledging the fact that vertically-specialized intra-regional trade is the most rapidly expanding component of East Asian exports, it is possible to include Asian currencies as well as extra-Asian currencies in the basket, thereby stabilizing effective rates, something that countries like Singapore and, more recently, China have done. The logical culmination of this train of thought is for each regional currency to be pegged to other regional currencies, creating a multilateral currency grid like the EMS and ensuring exchange rate stability within the region.⁷ Monetarily, this would make East Asia more like the euro area or the United States – that is, a large economically-integrated zone within which exchange rate volatility has been eliminated and which, by virtue of its size, can regard fluctuations vis-à-vis the rest of the world with an attitude of benign neglect.

But pegs, including basket pegs, have drawbacks in terms of their robustness with respect to capital mobility, their compatibility with prevailing political circumstances, and their congruence with state-of-the-art monetary-policy strategies. Pegs are difficult to defend in an environment of high capital mobility. They require monetary conditions

⁵ To name but a few, see Kawai (2005), Williamson (2005) and Yoshitomi (2007).

⁶ Thus, Kawai (2007a) estimates Frankel-Wei regressions designed to recover the weights on the major currencies in different countries' implicit currency baskets and finds some tendency for the weight on the dollar to fall, and weights on other currencies to rise, over time.

⁷ Choi (2007) describes how a basket dominated by extra-regional currencies could give way over time to a basket based on Asian currencies.

to be strictly harmonized with those in the rest of the world. To be sure, all currency pegs operate as narrow bands or exchange rate target zones, reflecting the existence of transactions costs. They specify not just the central parity but also ceilings and floors within which the rate can fluctuate.⁸ This leaves some scope for domestic monetary autonomy.⁹ But such autonomy is limited and, in any case, exists only if the band is credible, which constrains not just current but also prospective future policy. Defending a peg when the markets are free to bet against you requires the authorities to subordinate other goals to the overriding imperative of stabilizing the exchange rate. And this is not something to which governments in democratic societies, where citizens prioritize goals such as employment and growth, can credibly commit.¹⁰

At the same time, abandoning a peg, thereby controverting a whole series of earlier statements reiterating the commitment to the regime, can tarnish the credibility of the authorities and threaten their political livelihood.¹¹ This creates a tendency to attempt to defend the indefensible. When the crisis then comes, the consequences can be severe. The experience of the Asian crisis drove home these observations: the difficulty of exiting a regime or even just a specific peg when no longer appropriate, the costs of unsuitable monetary conditions, and the impossibility of defending the status quo when the markets turn. Similarly, Europe's experience with these problems, culminating in the EMS crisis of 1992-3, motivated the decision to abandon currency pegs by moving to the euro in 1999. In a sense it was the removal of capital controls, consequent on the

⁸ See Giovannini (1989) for a discussion of this point in connection with the gold standard, Bretton Woods, and the European Monetary System.

⁹ This is the lesson of the literature on exchange rate target zones; see Krugman (1991).

¹⁰ This is the central message of Eichengreen (1996). From this point of view it is not surprising that less than fully democratic regimes, including that of Hong Kong, have had the greatest success in maintaining currency pegs.

¹¹ The idea that devaluing or abandoning a peg has serious costs goes back to Cooper (1971), whose empirical work was updated by Frankel (2005).

decision in 1986 to create a single market in goods and factor services (including capital), that forced the issue, precipitating the crisis, the abandonment of EMS pegs, and the transition to the euro.¹² There is no more immediate example of the fragility of EMS-type arrangements in the face of high capital mobility.

Political solidarity sufficient to lend credibility to the commitment of strong-currency countries to support their weak-currency counterparts when their common regional arrangement comes under attack can, in principle, finesse this dilemma. This brings us to the second evaluation criterion, namely, the compatibility of arrangements with prevailing political circumstances and constraints. In EMS-style arrangements where regional currencies are yoked together in a multilateral currency grid, the weakness of one currency automatically translates into strength of others. That is, if one regional currency falls against the basket, others must rise against the basket as a matter of simple arithmetic. Countries in a strong position can then use their own currency to purchase that of the issuer in distress, in effect making a loan to the regional partner. To the extent that shocks are asymmetrically distributed across countries, the same conclusion applies when exchange rates are pegged to an extra-regional currency or currencies. Countries in a relatively strong position will then be able to lend reserves to neighbors in a position of weakness. And since the East Asian central banks and governments possess such ample reserves, there should be no difficulty in facing down the markets.

The problem is that, absent guarantees, governments and central banks are not prepared to provide large amounts of reserves or even purchase large amounts of the

¹² And, in the case of the minority of EU member states unprepared to sign on to the single currency (Sweden, the UK), to the abandonment of pegs in favor of more freely floating exchange rates backed by inflation targeting.

problem country's currency. They will want assurances that they will be repaid and that the problems requiring them to intervene will not be allowed to recur. Governments therefore attach conditions to their loans. They monitor whether corrective measures are being taken. They are not willing to provide unlimited resources, in contrast to international financial markets, which are able to mobilize essentially unlimited amounts of liquidity to attack a currency. In Europe, the EMS Articles of Agreement obliged strong-currency countries to provide unlimited support to their weak-currency counterparts through the Short-Term and Very-Short-Term Financing Facilities. But Germany, which anticipated that it would regularly find itself to be the strong-currency country, obtained an opt-out, which it implicitly invoked in 1992.¹³ Even though France and Germany were committed to building an "ever closer Europe," in the memorable words of the Treaty of Rome, such political solidarity as existed did not translate into a willingness to extend unlimited support.

East Asia's equivalent of the Short-Term and Very-Short-Term Financing Facilities is the Chiang Mai Initiative (CMI) of currency swaps and credits. Although its goals remain constructively ambiguous, one can imagine that the reserves committed to the CMI could be used to support currencies experiencing pressure. The CMI has been expanded repeatedly.¹⁴ Most recently, participating countries have committed to multilateralizing it (transforming the earmarked resources from bilateral credit lines into

¹³ Specifically, Otmar Emminger, the head of the German Bundesbank, obtained a statement of reassurance from his government, the so-called "Emminger letter," authorizing the Bundesbank could opt out in the event that its commitment to price stability was threatened. As Otto Graf Lambsdorff, the German Economics Minister, made clear in a speech to the Bundestag at the end of 1978, the commitment to unlimited intervention would always be subordinate to the Bundesbank Act of 1957 giving the German central bank a mandate to pursue price stability. See Eichengreen (2007a), Chapter 8.

¹⁴ At the time of writing, agreement has been reached on \$80 billion of bilateral swap agreements among the ASEAN+3 countries. Kawai (2007b), p.17.

a common reserve pool).¹⁵ But there is a reluctance to actually extend credits: the CMI was not activated when the interaction of high energy prices with fuel subsidies undermined confidence in the Indonesian rupiah in 2005 nor when the awkward imposition of capital controls disturbed Thai markets in 2006.¹⁶ Political relations between lending and borrowing countries are more distant than in Europe. The lenders are not in a position to apply firm surveillance and demand difficult adjustments by the borrowers. Worried about whether they will be paid back, they therefore hesitate to lend. The need to strengthen multilateral surveillance is well known, but this desire runs up against the reluctance of Asian countries to openly criticize their neighbors.¹⁷ Political realities thus constitute a second reason for skepticism about the durability of a multilateral currency grid.

Nor does an exchange rate peg represent state-of-the-art monetary policy. Pegging outsources the commitment to low inflation to the central bank issuing the currency to which the exchange rate is pegged. But outsourcing can be less credible than producing the commitment to price stability at home. Limited credibility also limits resort to the escape clause if it becomes necessary to adjust policy in response to, say, a slowdown in growth. Here flexible inflation targeting, described in more detail in Section 4 below, may offer a superior solution. Some countries (Israel for example)

¹⁵ Discussions of multilateralizing the Chiang Mai Initiative took place on the sidelines of the Spring 2007 meetings of the Asian Development Bank (see China Economic Net 2007).

¹⁶ In addition, the CMI has had no evident effect in slowing the rate of growth of reserves in the countries on the receiving end of its bilateral swaps. If the CMI really represented a credible reserve-sharing arrangement, one would expect self-insurance through reserve accumulation to slow. The fact that it has not sheds some light on the commitment to co-insure.

¹⁷ See Manzano (2001), Manupipatpong (2002) and de Brouwer and Wang (2003).

attempted to combine an exchange rate rule with an inflation target but moved away from this hybrid arrangement after experiencing conflicts between the two goals.¹⁸

Thus, the exchange-rate-centered approach to monetary cooperation fails to satisfy the three criteria set out above: robustness with respect to capital mobility, compatibility with prevailing political circumstances and constraints, and congruence with state-of-the-art monetary-policy strategies.

3. A Parallel Currency

An alternative approach to monetary cooperation is to create a parallel regional currency.¹⁹ This idea has been pushed by the Asian Development Bank (ADB) under its president, Haruhiko Kuroda. As described by Kuroda (2006), the Asian Currency Unit (ACU), defined as a weighted average of the 13 ASEAN+3 currencies, might start as a convenient summary indicator of the strength of Asian currencies vis-à-vis those of the rest of the world. But it also could be a convenient unit in which to denominate bonds for Asian investors seeking currency diversification and for issuers wishing to hedge the currency risk of receivables denominated in regional currencies. The ADB and other official institutions could jump-start the market in the instrument by issuing their own ACU denominated bonds.

Allowing an ACU to circulate alongside national currencies would have three advantages. First, it would not be necessary to stabilize exchange rates between the currencies comprising the basket; hence, fragility would be less. Second, the parallel currency would be more stable than any one national currency in terms of aggregate

¹⁸ For discussion see Leiderman and Bar-Or (2002).

¹⁹ This section draws liberally on Eichengreen (2006). See also Mori, Kinukawa, Nukaya and Hashimoto (2002) and Aggarwala (2003).

Asian production and exports; it would thus be a vehicle for encouraging intra-regional trade and investment. Third, the decision to move to a single currency could be driven by economics rather than politics. Only when a critical mass of producers, exporters and investors had adopted the parallel currency would it be clear that Asian economies were ready for monetary unification.

The ACU could be defined as a fixed number of units of each constituent currency. While the quantity of each component currency would remain fixed, its contribution to the value of the ACU would vary with its exchange rate; as currencies depreciated, their weight in the ACU would decline. The composition of the basket might be revised periodically to reflect the changing weights of the participating countries. Weights could be determined by the share of the country in regional GDP or exports.

Official ACUs would be created in exchange for swaps of a fraction of the international reserves of participating central banks. The amount of these swaps could change periodically to reflect changes in the quantity and value of those gold and dollar reserves. Participating central banks would agree to accept ACUs in transactions among themselves.

The existence of these benchmarks would make it more attractive for financial and nonfinancial firms to issue and accept ACU-denominated liabilities and assets, subject to standard prudential regulations. Bond or deposit documentation would specify that when the composition of the official ACU basket changed, the value of private ACU assets and liabilities would change accordingly. The value of the private ACU would be guaranteed by the commitment of the issuer (such as a bank accepting a deposit) to

convert the instrument into its underlying components. Arbitrage would in any case prevent significant divergences from opening up between the value of the private ACU and the constituent currencies.

This approach resembles another European precedent: efforts to use the European Currency Unit, or ECU, as a steppingstone to monetary unification. The ECU was defined in 1974 as a basket of currencies of the members of the European Community (EC) for purposes of EC accounting. It was adopted in 1975 as the unit of account for the European Development Fund and then for the European Investment Bank and the EC budget. With the establishment of the European Monetary System (EMS) in 1979, participating countries were supposed to stabilize their exchange rates against the ECU basket. Currency positions acquired as the result of interventions were similarly to be settled in ECU.

But the ECU never acquired a significant role in the business of the European Community and in the EMS in particular. Although credits within the EMS were denominated in ECU, they were extended in national currencies. Rather than actually basing EMS parities on an ECU central rate, that central rate was only used to compute bilateral rates, which became the focus for central banks and the markets. The ECU's unit of account role was limited to the financial accounts of EC institutions and a few European corporations engaging in extensive cross-border business. In the 1990s only about one per cent of trade within the Community was invoiced in ECUs. At their height, ECU-denominated claims still amounted to less than 10 percent of the non-dollar foreign currency claims of banks reporting to the Bank for International Settlements. ECU bonds never accounted for much more than 20 percent of all non-dollar Eurobonds. Medium-

term ECU notes accounted for barely 15 percent of the non-U.S. dollar market in such notes, ECU commercial paper for only about 10 percent of all euro-commercial paper.

The question is why. One answer is that it was unattractive to move to the ECU in the absence of evidence that others were prepared to do likewise. It was unattractive for individual European producers to set prices in ECU unless other European producers did so, limiting transactions costs. It was unattractive for individual financial institutions to float bonds denominated in ECU unless other financial institutions did likewise, creating the critical mass needed for the creation of a deep and liquid secondary market. It was unattractive to quote product prices in ECU so long as wages and other domestically-sourced inputs were priced in the national currency. Money is characterized by network externalities; it pays to use the same medium of exchange and unit of account as other market participants.²⁰ As with any network, there is a tendency for the status quo to be locked in. Governments can attempt to make the parallel currency more attractive by giving it legal tender status alongside the national currency. But the incentive to continue relying on the national currency will remain strong. Efforts to promote use of the parallel currency may have to overcome considerable historical inertia.

By design, this parallel-currency scheme is intended to encourage banks, firms and households to take on ACU-denominated claims. But if some end up with more ACU liabilities than assets, they will then be subject to currency-mismatch problems and heightened financial fragility. If banks match their ACU liabilities and loans, the currency risk will simply be transferred to their corporate customers, saddling the banking system with heightened credit risk. Liquidity risk can also result if depositors are aware of these vulnerabilities and run on the banking system.

²⁰ See Dowd and Greenaway (1993).

These risks can be contained by tightening prudential supervision and regulation to ensure that banks hold sufficient liquid ACU assets and constituent foreign currency assets to avert a run. The central bank should hold additional foreign reserves in ACU or constituent foreign currencies in order to be able to replenish the ACU reserves of the banking system. The authorities should consider a managed float to encourage banks and firms to hedge their ACU exposures.

But forcing banks and governments to hold additional foreign currency reserves would have a significant opportunity cost. Limiting their ability to incur liabilities in ACU would prevent them from issuing additional ACU-denominated bonds and thereby enhancing the liquidity of secondary markets. Forcing banks to hold additional foreign currency reserves would limit the growth of intermediation. And, given the gap between the promulgation and enforcement of prudential regulations, it is not clear that tighter supervision would ultimately succeed in containing the risk to stability. The conclusion of much of the literature is that partially dollarized economies should urgently move forward to full dollarization or back toward a predominantly domestic currency basis.²¹ This suggests that an extended period when the parallel currency circulates alongside national currencies could be one of heightened financial fragility.

Moreover, limiting the freedom of banks to accept ACU deposits in excess of their ability to make ACU loans and otherwise restraining the growth of transactions in ACU claims would slow the spread of the parallel currency. Inevitably, then, the parallel-currency route to monetary integration could be a lengthy one.

To gain widespread acceptance, the ACU will have to out-compete not just existing Asian currencies but also the dollar, which is widely used for cross-border

²¹ See for example di Nicolo, Honohan and Ize (2003).

transactions in the region, as noted above. This observation has led authors like Robert Mundell to advocate that Asian countries should adopt the dollar as a “common parallel currency” – that is, as an officially-recognized currency for use in invoicing and settling trade.²² But, as intra-Asian trade continues to grow, invoicing and settling in a common Asian currency will become more attractive relative to invoicing and settling in dollars. In any case, Asian countries are reluctant to give the currency of an outside power legal tender status for domestic transactions. As a result, the residents of an Asian country must still convert dollars into the national currency when making tax payments or engaging in other domestic transactions requiring a unit with legal tender status. Under the parallel currency approach, Asian governments would give the ACU full legal tender status for domestic use, which would make it more attractive. There are also reasons to think that the dollar will grow more volatile relative to Asian currencies as Asian countries relax and abandon their pegs to the greenback in the interest of greater flexibility and to the extent that America’s twin deficits lead to a weaker dollar. This will make using ACUs rather than dollars more attractive. Finally, the hold of network externalities and therefore the advantages of incumbency may be less in our financially-sophisticated age than was the case in the past. Given the proliferation of instruments in financial markets and the decline in bid-ask spreads, it is easier for market participants to contemplate alternatives.

How does the parallel currency approach stack up against our three criteria for a viable approach to monetary cooperation and integration? It is congruent with political conditions and constraints: it does not require significant sovereign prerogatives to be delegated to a transnational entity; in particular, national central banks retain control over

²² The language is from Mundell (2002).

their monetary policies so long as the national currency has significant market share. The approach is consistent with the image of integration as being driven more by economics and less than politics than in Asia than in Europe. It is compatible with financial deregulation and capital mobility. Indeed it capitalizes on their existence by encouraging the creation of new financial instruments and encouraging their circulation internationally. In particular, the greater is cross border bond issuance and investment in the region, the more attractive it should be to denominate such issues in the parallel currency. Finally, the parallel currency approach is compatible with state-of-the-art monetary policy practices insofar as national central banks can continue to pursue inflation targeting so long as there remains a demand for the national currency. Inflation control may be more complex if there are unpredictable shifts between individual national currencies and the parallel composite currency, but historical experience does not suggest that the circulation of a parallel currency makes inflation forecasting and inflation control impossible. Nor does the literature on partially dollarized banking systems suggest that these jeopardize price stability.²³

A drawback of the parallel currency approach is that the parallel currency is likely to gain market share only slowly. The inertia favoring national currencies is strong. Prudential policies limiting the risks to financial stability created by currency mismatches will also slow adoption of the parallel currency. But if this means that the process culminating in a single Asian currency takes time to unfold, this is not necessarily a bad thing, especially since years will have to pass before the entire range of supportive conditions is in place for Asian monetary unification.

²³ See Reinhart, Rogoff and Miguel Savastano (2003).

4. Harmonized Inflation Targeting

A third option for monetary cooperation is harmonized inflation targeting. At the national level this means substituting an inflation target for an exchange rate target as the anchor for monetary policy. The full framework entails not just empowering the central bank to set an inflation target but also requiring it to release an inflation forecast and to explain how it will deliver an outcome consistent with that forecast, as well as to publish an inflation report explaining deviations between forecasts and realizations.²⁴ The appeal of inflation targeting is that credibility is grown at home. Policy can be tailored to domestic price-level pressures instead of simply hoping that foreign monetary conditions are suitable for domestic circumstances.²⁵ As the central bank gains credibility, it can allow deviations from target inflation in the short run as necessary to damp short-run output and employment fluctuations.²⁶ If the medium-term inflation target is fully credible, then loosening credit in the short run in order to support output and employment will do little to fan inflation. This balance between credibility and flexibility has led a growing number of countries, including Asian countries, to adopt this framework.²⁷

Note that the exchange rate plays a subsidiary role when monetary policy is conducted in this fashion. The central bank commits to hitting an inflation target, not an exchange rate target. When the two conflict, it is the exchange rate that has to give.²⁸ If a country retains capital controls, there may be some scope for pursuing separate inflation

²⁴ For an introduction to inflation targeting experience, see Bernanke, Laubach, Mishkin and Posen (2000) and Mishkin and Schmidt-Hebbel (2001). As typically formulated, the full inflation targeting framework entails public announcement of medium-term inflation targets, an institutional commitment to price stability, an information-inclusive approach to setting policy instruments, a transparent monetary policy strategy, and increased accountability of the central bank for attaining its inflation objectives.

²⁵ As will have to be the case if foreign monetary conditions are imported via the currency peg.

²⁶ This is known as flexible inflation targeting.

²⁷ Rose (2006) provides an up-to-date list of countries that have adopted this regime.

²⁸ Recall that this was the experience, as noted above, of early inflation targeters such as Israel that attempted to pursue both inflation and exchange rate targets simultaneously.

and exchange rate targets, as in China today. But that scope is limited when capital markets are open, as is increasingly the case.²⁹ If the central bank loosens in order to prevent the exchange rate from appreciating, for example, then inflation will overshoot, undermining the credibility of policy regime. If the central bank is truly committed to targeting inflation, then targeting the exchange rate will have to be sacrificed.

This is not to say that the exchange rate plays no role in open-economy inflation targeting. The exchange rate can be one of the most important variables for forecasting inflation in an open economy, and the central bank will want to pay it close attention. But this is not because the authorities care about the exchange rate per se; it is because the exchange rate helps them anticipate movements in the variable that they do care about, namely, inflation.³⁰

Harmonized inflation targeting would entail a group of countries agreeing on inflation targets. If chosen appropriately, that agreement might also have the ancillary benefit of limiting exchange rate instability. Assume, for sake of exposition, that relative purchasing-power-parity holds – that the domestic inflation rate minus the foreign inflation rate equals the rate of depreciation of the currency. By implementing targets for inflation, two countries can then determine the rate of change of their bilateral exchange rate. If they agree on common inflation targets, the exchange rate will be stable under the assumption of relative PPP.³¹

²⁹ And which will presumably be even more the case in the future.

³⁰ The particulars vary depending on the structure of the economy – whether the exchange rate is driven by foreign or domestic shocks, whether the foreign exchange market is dominated by current or capital account transactions, and whether or not exchange rate movements have important balance sheet effects with implications for the credit channel and financial stability. But the general point remains the same. See Eichengreen (2007b).

³¹ A complication is that relative PPP is even remotely plausible only for the prices of traded goods, whereas inflation targets are set in terms of consumer prices (or consumer prices net of volatile energy- and commodity-related components). Because nontraded goods have a weight in the consumer price index and

In practice, something resembling PPP, whether relative or absolute, holds at best only in the medium to long run; exchange rates deviate from the level predicted by that relationship in the short run. But it can still be argued that the exchange rate will be more stable when two countries target inflation than when they do not.³² A credible policy of inflation targeting provides an anchor for expectations, and the existence of that anchor will help to stabilize foreign exchange markets. Investors will no longer have reason to believe that high inflation today is a leading indicator of high inflation tomorrow, since the authorities have now committed to low inflation. They will pay a political price of they miss their target, and they will have to provide an explanation for any failure. Each bit of inflationary news will not cause the exchange rate to jump, because investors have reason to doubt that inflationary news today augers further inflation tomorrow. Speculation in the foreign exchange market will become stabilizing rather than destabilizing. Exchange rates will settle down.

There is empirical support for this view. Kuttner and Posen (2001) use data for 41 developing countries, relating exchange rate volatility to whether or not a country targets inflation (and to measures of central bank autonomy and to the declared exchange rate regime. They find that exchange rate volatility is less in inflation targeters, although the effect is not statistically significant at conventional confidence levels. Using data for 45 developing and advanced countries, Rose (2006) also finds that inflation targeters have significantly lower exchange rate volatility than other countries.

rise faster in fast-growing low-income economies (due to operation of the Balassa-Samuelson effect), keeping the exchange rate stable may require low-income countries to maintain a somewhat higher inflation target.

³² The locus classicus of this argument is Eichengreen and Taylor (2004), from which the immediately following text and argument are drawn.

Eichengreen and Taylor (2004) have also looked at the determinants of bilateral exchange rate volatility in a multi-country model. They model bilateral exchange rate volatility as a function of a vector of economic and financial characteristics in each country pair, and in addition of whether one or both central banks are inflation targeters. Because the decision to target inflation may be endogenous, they instrument this variable using the M2/GDP ratio (on the grounds that countries with deeper financial markets find it easier to target inflation) and with a measure of transparency and corruption from *Transparency International* (on the grounds that inflation targeting is easier in countries where transparency is part of the economic and political culture). They find that exchange rate volatility is less when one or both countries target inflation. This appears to be the case whether or not instruments are used for inflation targeting and whether or not a separate measure of the exchange rate regime is included.

The results thus suggest that inflation targeting may go some way toward limiting exchange rate volatility. They also suggest that this regime is likely to be more durable and less crisis prone than exchange rate targeting, in that no country adopting inflation targeting has, so far, abandoned that regime either voluntarily or under duress. This means that exchange rate volatility can actually be less in the medium term in countries that target inflation than in countries that seek to peg the exchange rate (and ultimately fail).³³

Inflation targeting presupposes the absence of fiscal dominance (that monetary policy is not subordinated to chronic budget deficits). It assumes financial development sufficient to establish a reliable link between the central bank's instruments and inflation outcomes. More generally it assumes the ability to reliably forecast inflation. Not all of

³³ Something also pointed out by Rose (2006).

these conditions may be present in developing countries. But reservations regarding inflation targeting in developing countries have receded as more such countries have adopted the regime (inter alia Indonesia, Turkey and Peru). For inflation targeting to anchor expectations, it is not necessary to adopt the entire framework at the outset; Peru, for example, adopted an inflation target without releasing forecasts, publishing an inflation report, etc. (It has since begun doing so.) Thus, early warnings that inflation targeting is too demanding for developing countries may have been overdrawn.

Still, there is reason to question the feasibility of inflation targeting in the low-income members of ASEAN (Cambodia, Laos, Myanmar, Vietnam), given the underdevelopment of their financial systems, the absence of a culture of transparency, and central banks' lack of operational independence. But these countries have an alternative, namely pegged exchange rates, because they retain capital controls (as a corollary of that same financial underdevelopment). This is a reminder that one-size-fits-all advice is not likely to provide a path to monetary and exchange rate cooperation in East Asia.

How does harmonized inflation targeting rate in terms of our three evaluation criteria? The regime is relatively robust relative to financial liberalization and capital mobility, in that it avoids creating fixed prices at which financial markets can shoot. As Rose (2006) notes, inflation targeters experience a low incidence of sudden stops in capital flows, and no inflation targeter has yet experienced a full-fledged banking crisis. Inflation targeting is congruent with modern principles of monetary policy in that it encourages central bank independence and accountability, a commitment to price stability, and the use of an information-inclusive operating strategy. And it is consistent

with Asia's political circumstances in that it does not assume a degree of political solidarity – and therefore a willingness to compromise national sovereignty – that does not, in fact, exist.

5. Conclusion

The desire for exchange rate stability in East Asia is strong. It is rooted in the association of stable exchange rates with the East Asian economic miracle. It is buttressed by memories of the 1997-8 financial crisis, when currency volatility precipitated balance-sheet problems and financial distress. It is reinforced by the expansion of vertically-organized intra-regional trade and the emergence of China as a low-cost assembly platform. It appeals to those who see exchange rate stabilization as a steppingstone to East Asian monetary union.

Yet a regional exchange rate arrangement analogous to the European Monetary System of the 1980s and 1990s also has drawbacks. History shows that pegged-rate regimes are short lived. They are especially short-lived when financial systems are deregulated and capital accounts are open. And the costs of their collapse can be considerable, something that Asian observers should appreciate given their own experience a decade ago. They require a high level of political solidarity – a willingness to create transnational institutions of monetary governance and to delegate policy to those institutions. East Asian countries might be prepared to pool their monetary sovereignty in this way sometime in the future. But that date is still distant. In the meantime, exchange rate pegging remains risky business. While cooperation in pegging exchange

rates can be a logical step on the path to deeper monetary integration, it can also be a misstep if things go wrong.

Two alternatives that go some way toward meeting the desire for stable exchange rates while consensus on the desirability of an Asian monetary union is still being forged are a parallel currency and harmonized inflation targeting. A parallel regional currency provides a stable unit for intra-regional trade and investment. Inflation targeting limits exchange rate volatility, in turn limiting the need for expensive hedging transactions. Both approaches thus promise to lend further impetus to the growth of intra-regional trade and investment.

But the parallel currency approach is unproven. There are few historical examples of synthetic, basket-based parallel currencies that have gained significant market share. And the fact that the market in the parallel currency will start out small and that liquidity will be limited will mean significant transactions costs for those using it in intra-regional trade and investment. Inflation targeting, in contrast, is a proven strategy. Central banks in East Asia and elsewhere have accumulated considerable experience with its operation. Its corresponding drawback is that it will only reduce exchange rate volatility, not eliminate it. It therefore will not lend the same impetus to the expansion of intra-regional trade and investment as a hypothetical arrangement where exchange risk is removed.

The choice is thus between a risky strategy that promises to eliminate exchange risk in the short run but also heightens the danger of running off the rails, and a pair of safer strategies that only reduce exchange risk but are likely to prove more robust and

durable. Given the experience of 1997-8, East Asian policy makers have good reason to opt for the latter.

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