

# Exchange Rate Cooperation: Is East Asia Ready?<sup>6</sup>

## Introduction

**The 1997/98 Asian financial crisis provided greater impetus to East Asian regional economic cooperation.**

In response to the 1997/98 Asian financial crisis, East Asia<sup>7</sup> launched several initiatives to enhance regional cooperation, given the contagion both banking and currency crises had on the region as a whole. These centered on early detection and management of financial and macroeconomic vulnerabilities. To promote financial cooperation and build regional financial stability, ASEAN+3 launched three key programs:

- (i) A regional economic review and policy dialogue (ASEAN+3 ERPD);
- (ii) A regional reserve pooling arrangement, the Chiang Mai Initiative (CMI); and
- (iii) The Asian Bond Markets Initiative (ABMI) to develop and integrate local-currency bond markets.

The ASEAN+3 ERPD and the CMI were launched in May 2000, while the ABMI was launched in 2003. ERPD has been an integral part in supporting the CMI, while local currency bond market development was pursued to avoid the currency and maturity mismatches that helped spark the crisis. The three initiatives were designed to both provide liquidity support in times of crisis and to begin constructing a crisis prevention system to reduce and better manage future crisis effects.

**The 2007/08 global financial crisis highlighted the need to speed up regional economic cooperation in East Asia.**

It was actually in May 2006 that ASEAN+3 began working to improve the ERPD and multilateralize the CMI—from a web of bilateral swap arrangements to one large, unified reserve pooling arrangement. The global financial meltdown in late 2007 hastened the process along. The main components of the CMI Multilateralization (CMIM)—a “self-managed reserve pooling” arrangement governed by a single contractual agreement (with stipulated voting rights, contributions, and multiples in case of emergency borrowing)—were endorsed by ASEAN+3 finance ministers in May 2009 and became effective in March 2010. To strengthen the existing surveillance mechanism in support of the CMIM, the finance ministers also agreed to establish an independent surveillance unit—the ASEAN+3 Macroeconomic Research Office (AMRO) to be established in Singapore.<sup>8</sup> Both the CMIM and AMRO are significant first steps toward institutionalizing regional cooperation in East Asia.

**With spillovers from national policies and the growing interdependence between the region’s economies, the next step for regional cooperation in East Asia could possibly be starting to cooperate on exchange rate policy.**

As East Asia’s economies have grown larger and more complex, they also have become more integrated—through trade, financial flows, direct investment, and other forms of economic and

<sup>6</sup>Portions of this special section are based on papers prepared by Charles Wyplosz (Professor of Economics, The Graduate Institute, Geneva, Switzerland) and Charles Adams (Visiting Professor, Lee Kuan Yew School of Public Policy, National University of Singapore).

<sup>7</sup>East Asia comprises the 10 members of the Association of South-east Asian nations (Brunei Darussalam, Cambodia, Indonesia, Lao People’s Democratic Republic, Malaysia, Myanmar, Philippines, Singapore, Thailand, and Viet Nam) plus the People’s Republic of China; Hong Kong, China; Japan; Republic of Korea; and Taipei, China.

<sup>8</sup>See “Regional Surveillance for Economic Stability” in the December 2009 edition of the *Asia Economic Monitor*, <http://www.aric.adb.org/asia-economic-monitor/>.

social exchange. Given this interdependence, East Asia should benefit from stronger mechanisms for macroeconomic monitoring and potentially cooperating on policy measures. Exchange rates are crucial to this process as they can drive trade and capital flows—and be the source of serious instability—well illustrated by the 1997/98 Asian financial crisis. But even with the region becoming increasingly interdependent, its exchange rate policies in particular have been increasingly heterogeneous, with intra-regional exchange rate variability actually increasing in the wake of the recent global financial crisis. As capital inflows are expected to surge with abundant global liquidity attracted to the higher economic growth within the region, differing national policy responses have brought some tension to exchange rate policies.

Thus, this special section attempts to answer four critical issues:

1. What are current exchange rate arrangements in the region?
2. Why cooperate on exchange rates?
3. What are the options for regional exchange rate cooperation?
4. What are the initial steps in building regional exchange rate cooperation?

## What are current exchange rate arrangements in the region?

**Over the past two decades, exchange rate regimes across the region have undergone substantial change.**

East Asian economies are well aware of the importance of exchange rates and the difficulties of choosing the most appropriate regime. In the period before the 1997/98 Asian financial crisis, there was a high degree of similarity across exchange rate arrangements in the region. This was the result of common pegs—though uncoordinated—with the US dollar. These led to

a high degree of intra-regional exchange rate stability. Since the Asian financial crisis, however, economies across the region have largely revamped their exchange rate regimes—many with more flexible arrangements. Today, the region's exchange rate regimes span the full spectrum from rigidly managed pegs to the US dollar to mostly floating exchange rate regimes, with considerable variations in between (**Table 12**).

**Intra-regional trade has grown substantially since the 1997/98 Asian financial crisis, partly helped by the stability of intra-regional exchange rates.**

While exchange rate regimes vary across the region, the region's local currency exchange rates against both the US dollar and a basket of major trading partner currencies—or in effective terms—have been relatively stable. The coefficients of variation of monthly nominal exchange rates for most East Asian currencies are smaller than 10% of mean, while for other emerging and advanced economies, they are close to 10% of mean or higher (**Table 13**). Intra-regional exchange

**Table 12: IMF Classification of Exchange Rate Regimes**

Currency	IMF Classification
Brunei dollar	Currency board
Cambodian riel	Floating
PRC renminbi	Stabilized arrangement
Hong Kong dollar	Currency board
Indonesian rupiah	Floating
Japanese yen	Free floating
Korean won	Free floating
Lao PDR kip	Other managed arrangement
Malaysian ringgit	Floating
Myanmar kyat	Other managed arrangement
Philippine peso	Floating
Singapore dollar	Floating
Thai baht	Floating
Vietnamese dong	Other managed arrangement

PRC = People's Republic of China, Lao PDR = Lao People's Democratic Republic.

Source: *Annual Report on Exchange Arrangements and Exchange Restrictions 2009*, International Monetary Fund.

**Table 13: East Asia Currencies** (coefficient of variation, %)

	Local Currency/\$ <sup>1</sup>		Nominal Effective Exchange Rate <sup>2</sup>	
	Jan-00–Jun-07	Jul-07–Sep-10	Jan-00–Jun-07	Jul-07–Sep-10
China, People's Republic of	2.06	3.60	4.99	5.37
Hong Kong, China	0.21	0.29	5.36	3.04
Indonesia	8.19	8.72	8.55	6.26
Japan	6.18	9.83	6.21	11.09
Korea, Republic of	10.84	13.85	7.67	14.31
Malaysia	2.49	4.44	3.97	2.76
Philippines	7.74	4.98	10.04	4.49
Singapore	4.93	3.80	1.95	1.91
Taipei,China	3.82	2.99	4.27	1.82
Thailand	6.76	3.51	3.73	2.02
Viet Nam	4.05	6.54	—	—

— = unavailable.

<sup>1</sup>Local currency/\$ values computed using data from Bloomberg. <sup>2</sup>Nominal effective exchange rate values computed using data from Bank for International Settlements.

Source: Bloomberg and Bank for International Settlements.

rate stability has helped intra-regional trade, which has significantly increased in most of the region's economies (**Table 14**).<sup>9</sup> As trade and investment flows grow within the region, interest in maintaining greater exchange rate stability has grown.

**However, following the 2007/08 global financial crisis, intra-regional exchange rates have shown far greater dispersion, potentially affecting the further expansion of intra-regional trade.**

While East Asian banks did not hold significant amounts of “toxic” assets, the financial meltdown—while originated in the United States—affected East Asia via strong trade and financial links. With the region's robust “V-shaped” recovery, some currencies appreciated significantly against the US dollar, while

**Table 14: Export Shares—East Asia (%)**

Export Share <sup>1</sup> (%)	East Asia <sup>2</sup>		United States		eurozone <sup>3</sup>	
Reporter/Partner	2000	2008	2000	2008	2000	2008
China, People's Rep. of	48.28	36.58	20.93	17.69	12.29	15.34
Hong Kong, China	48.88	61.11	23.25	12.75	10.49	9.58
Indonesia	59.25	61.51	13.66	9.55	11.24	9.49
Japan	40.76	47.79	30.09	17.75	12.80	10.55
Korea, Republic of	45.39	47.15	21.89	10.90	10.27	10.21
Malaysia	55.37	57.24	20.54	12.50	10.17	8.92
Philippines	49.49	61.01	29.84	16.72	13.71	15.75
Singapore	52.81	60.68	17.29	7.13	11.02	7.79
Taipei,China	47.84	63.05	23.42	12.05	9.60	6.21
Thailand	47.21	49.78	21.32	11.40	11.69	9.02
Viet Nam	52.84	40.73	5.06	18.93	15.64	13.05
East Asia (EA)	47.09	48.06	23.64	14.63	11.53	11.50
East Asia (extra-EA) <sup>4</sup>			44.68	28.17	21.80	22.13

<sup>1</sup>Refers to exports of each East Asian (EA) country to a partner as a percentage of the former's total exports to the world. For example, United States accounts for 9.55% of Indonesia's total exports in 2008. <sup>2</sup>Includes People's Republic of China; Japan; ASEAN-4 plus Viet Nam = Indonesia, Malaysia, Philippines, Thailand, and Viet Nam; NIEs = Hong Kong, China; Republic of Korea; Singapore; and Taipei,China. <sup>3</sup>Includes Austria, Belgium, Cyprus, Finland, France, Germany, Greece, Ireland, Italy, Luxembourg, Malta, Netherlands, Portugal, Slovakia, Slovenia, and Spain. <sup>4</sup>Refers to exports of East Asia to US and eurozone as a percentage of East Asia's total exports as a single trading entity.

Source: *Direction of Trade Statistics September 2010 CD*, International Monetary Fund; and CEIC for Taipei,China.

<sup>9</sup>The share of exports from the PRC to other East Asian economies has declined as the PRC's exports to other parts of the world expanded much faster over the past decade.

others have been relatively unchanged (see Figure 25). In both nominal and real effective terms, several currencies appreciated more, while some even depreciated (see Figures 26, 27). Furthermore, in real terms, the region's individual currencies against a regional basket have become far more widely dispersed since early 2007 (**Figure 71**). The increase can be contrasted with the low dispersion that followed the 2000/01 "dot.com" stock market crash in developed countries. In short, following the 2007/08 global crisis, intra-regional exchange rate fluctuations have increased—a detriment to expanding intra-regional trade.

### Capital controls or foreign exchange market intervention in response to surging capital inflows could hurt trading partners within the region.

More widely dispersed intra-regional exchange rates, coupled with the decreased variations in individual currencies (see Table 13), means some economies may have been intervening in foreign exchange markets to prevent their currencies from appreciating—possibly to smooth exchange rate movements and/or to maintain export

competitiveness. This strategy holds the potential to force other countries to follow suit, thus raising the specter of "currency wars". To better manage capital inflows, some economies in the region have implemented capital controls, which may push capital to other economies in the region, and thus make capital inflows potentially more volatile. In addition, the uneven global recovery could draw even greater capital inflows to the region—and over the longer term. Thus, national policy responses could drag exchange rates across the region further apart. Could this increasing dispersion become dangerous to the region's growth prospects? And if so, what mechanisms exist to help cushion the blow?

### Why cooperate on exchange rates?

**The rationale for policy cooperation derives from the fact that national policy actions can have significant spillover effects, or externalities, on other economies.**

Globalization is now a fact of life. And each economy is linked by trade and finance. National policies will have spillover effects, or externalities, on other economies. These externalities must be part of the decision-making process to attain a global or regional optimum. Policy cooperation is one way to internalize those spillover effects. Potential destabilizing capital flows and exchange rate instability highlight the need for strong policy cooperation at both global and regional levels.

**Figure 71: Regional Real Exchange Rate Dispersion**  
(coefficient of variation, %)<sup>1</sup>



<sup>1</sup>Coefficient of variation of ASEAN+3 and Hong Kong, China (excluding Indonesia, Myanmar and Lao People's Democratic Republic) real exchange rates against an Asian Monetary Unit (AMU), normalized to 100 over the sample period. The AMU is a trade-weighted basket of 14 currencies (ASEAN+3 and Hong Kong, China). Real effective exchange rates are computed using the divergence indicator. Exchange rates of Indonesia, Lao People's Democratic Republic, and Myanmar are excluded as they have undergone large idiosyncratic changes that cloud the overall pattern. Source: OREI staff calculations using data from the Research Institute of Economy, Trade, and Industry (RIETI), Japan.

**Studies on the benefits and costs of deep exchange rate cooperation generally use the concept of an optimum currency area (OCA)—yet East Asian economies are far from meeting most OCA criteria.**

Drawing on the key insights of a long list of studies,<sup>10</sup> deep forms of exchange rate cooperation—and eventual monetary union—were only seen as beneficial under a set of very stringent criteria. These include common economic shocks, similar levels and structure of economic development, and very high degrees of factor mobility and/or wage price flexibility. Given the euro’s history, reinforced during the recent global financial crisis, successful exchange rate—and monetary—cooperation must be supported by very high levels of political, fiscal, and financial cooperation, along with supporting institution building. Because East Asian economies today are nowhere near meeting most OCA criteria, any deep exchange rate (and monetary) cooperation must be a long-term goal for East Asia.

**Rapidly growing interdependencies in trade and finance in the region and increasing importance of spillover and contagion effects make regional exchange rate cooperation essential.**

Since the 1997/98 Asian financial crisis, intra-regional trade has grown substantially, as supply chains and production networks have become central to East Asia’s leadership in global manufacturing (see Table 14). East Asia’s financial integration has also progressed over the past two decades, though far less than with production and trade. As with trade and finance, macroeconomic interdependence in East Asia has also increased. New trade theory shows trade links tend to be

deeper between neighbors, and those deeper trade links foster a deepening of financial ties. This means exchange rates tend to matter more at the regional than global level. Any exchange rate belongs to two countries, so that any desired reaction to its fluctuations requires some degree of cooperation. Moreover, bilateral cooperation on exchange rates is an unavoidable source of externality for third parties, and given the regional bias in economic integration, this externality is more sizeable at the regional level.

**East Asia’s production networks illustrate the need for greater intra-regional exchange rate stability.**

Intra-regional trade in East Asia is characterized by production fragmentation—a network of small independent firms and multinational corporations using the region as their production base. These regional production networks bring greater interdependence between East Asian economies. For them to flourish, however, they require exchange rate stability, or at least predictability. Exchange rate turbulence makes smooth and efficient production networks difficult, particularly if a production network consists of small firms. Also, excessive exchange rate fluctuations may lead producers to relocate to other countries in the same region. Yet such relocations are inherently costly and unproductive. Limiting exchange rate fluctuations could therefore reduce unproductive relocations.

**The need to correct global imbalances in the aftermath of the global financial crisis adds to the argument for greater intra-regional exchange rate stability.**

The global financial crisis underscored the need for the region to rebalance its sources of growth from external demand to greater domestic and regional demand. A shift toward increased reliance on regional demand also places increased importance on exchange rate cooperation—as stable exchange rates between regional currencies promotes intra-regional trade. Most East Asian economies run large current account surpluses

<sup>10</sup>See, for example, R.A. Mundell. 1961. Optimum Currency Areas. *American Economic Review*. 51. pp. 509–517; R.N. Cooper. 1968. *The Economics of Interdependence*. New York: McGraw-Hill; K. Hamada. 1976. A Strategic Analysis of Monetary Interdependence. *Journal of Political Economy*. 84. pp. 667–700; and K. Hamada. 1985. *The Political Economy of International Monetary Interdependence*. Cambridge: MIT Press.

(Figure 72). So, exchange rates against both the US dollar and primary trading partners will tend to appreciate. However, authorities in individual economies might be reluctant to allow their currencies to appreciate if it means losing competitiveness. Greater regional cooperation may allow the region's economies to be more willing to appreciate currencies without fear of losing competitiveness to other economies, thus helping global rebalancing.

**Achieving greater intra-regional exchange rate stability promotes intra-regional trade, reduces exchange rate policy tension and improves the allocation of regional resources.**

Reducing exchange rate uncertainty, most importantly, helps expand intra-regional trade in goods and financial assets as a key component of the region's rebalancing strategy. It helps reduce tensions arising from attempts to make exchange rates appreciate less. In addition, greater intra-regional exchange rate stability improves price transparency and contributes to better allocation of regional resources.

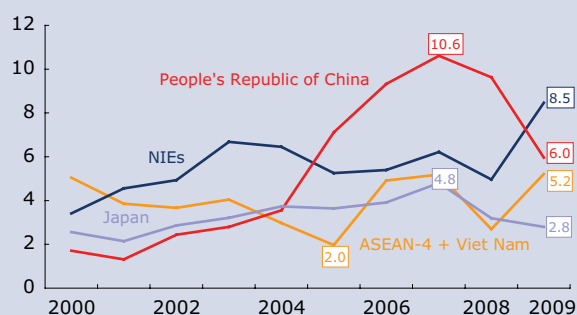
**But there are also obvious potential costs to greater intra-regional exchange rate stability.**

The exchange rate is a crucial channel for transmitting economic and financial disturbances as well. And some fluctuation helps restore equilibrium when the pre-existing equilibrium is disturbed by other factors. Intra-regional exchange rate stability may not be able to help react to economic shocks, which then places a greater burden on internal price and cost adjustments within a specific economy. Also, unless a system is designed to allow some flexibility in intra-regional exchange rates, misalignments or distortions can result leading to speculative currency attacks. Thus, there are good reasons for adopting a step-by-step approach in building exchange rate cooperation to preserve a degree of intra-regional exchange rate flexibility.

**The objective of regional exchange rate cooperation should be to stabilize *intra-regional* exchange rates, while allowing for sufficient *inter-regional* exchange rate flexibility.**

The depth of the global financial crisis will have a long-lasting impact on advanced economies—with economic growth remaining weak for at least the next several years. The growth differential between East Asia and the US and eurozone would lead the region's currencies to appreciate against the US dollar and euro over a long period. Appreciation of East Asia's currencies also contributes to correcting global payments imbalances. Long-term growth differentials and expectations of long-term currency appreciation suggest that capital inflows to East Asia could be long-lasting. Maintaining flexible exchange rates *inter-regionally* is an essential tool to manage potentially volatile capital flows and external shocks.

**Figure 72: Current Account Balance—East Asia**  
(% of GDP)



ASEAN-4 = Indonesia, Malaysia, Philippines and Thailand; NIEs = Hong Kong, China; Republic of Korea; Singapore; and Taipei, China; GDP = gross domestic product.  
Source: *International Financial Statistics*, International Monetary Fund; CEIC; and national sources.



## What are the options for regional exchange rate cooperation?

**There is a range of options for greater regional cooperation that can attain intra-regional exchange rate stability while allowing for inter-regional exchange rate flexibility.**

The options available to the region can broadly be categorized into three types. At one end of the spectrum, there are relatively informal arrangements where—through policy dialogue and discussion—the region moves toward greater exchange rate cooperation. These are informal arrangements with no need for new institutions. Cooperation can be pursued through existing regional forums such as the ERPD. The mid-level option would be for the region’s economies to develop a binding agreement to peg exchange rates in one of several ways. This more ambitious option has its constraints, though. One way would be to agree to peg the region’s currencies to a particular currency or basket of currencies. Alternatively, it is also possible to peg the region’s currencies to another and allow them to float jointly against outside currencies. At the other end of the spectrum, the region could aim to become a full-blown monetary union like the eurozone, where the region adopts a common currency and irrevocably binds exchange rates together. This is naturally a much more complicated process requiring the establishment of a new institutional framework for the region.

**Regional dialogue leading to agreements on stabilizing exchange rates could be one way of achieving exchange rate cooperation.**

The most informal form of regional cooperation on exchange rates would be dialogue and discussion among policymakers, which would allow them to understand spillover effects of national policies. Policy dialogue and discussion could lead to agreements among a group of economies to maintain exchange rate stability. An example of this

type of cooperation is the Plaza and Louvre Accords by the G7.<sup>11</sup> Europe’s response in the aftermath of the collapse of the Bretton Woods System provides another example of regional cooperation on exchange rates. Europe’s response was to set up the Exchange Rate Mechanism (ERM), a tight arrangement that eventually led to the adoption of a monetary union in Europe (**Box 2**). East Asia’s ERPD in many ways resembles the G7 process. It is mostly informal and seeks to improve mutual understanding of each country’s needs and policy response. In addition, it can develop joint policy initiatives when needed, yet is entirely consultative and devoid of any binding authority. In short, it is a soft cooperative arrangement. The recent ASEAN+3 decision to create AMRO—a permanent office for economic monitoring and surveillance in support of the CMIM—could elevate ERPD’s status and ability to act, somewhat similar to the European process.

**A stronger form of cooperation would be for the region’s economies to peg their currencies to achieve intra-regional exchange rate stability.**

There are several options in choosing which currencies should be included in a currency peg. It could either be a single currency or a basket of currencies. Furthermore, any basket of currencies used for the peg could either be from within or outside the region, or some combination of the two. When a basket of currencies is used, it can be a common basket or a basket that differs country by country. A single currency is generally considered unattractive for East Asian economies because trade is quite diversified (see Table 14), making any one of the major international currencies—the US dollar, euro, or yen—ill-suited as a common peg. This is why most of the attention has been devoted to basket pegs.<sup>12</sup>

<sup>11</sup>The G7 includes Canada, France, Germany, Italy, Japan, the United Kingdom, and the United States.

<sup>12</sup>J. Williamson. 1999. The Case for a Common Basket Peg for East Asian Currencies. In S. Collignon, J. Pisani-Ferry and Y.C. Park, eds. *Exchange Rate Policies in Emerging Asian Countries*. London and New York: Routledge.

**An Asian Monetary Unit would be an example of an internal basket of currencies that could stabilize intra-regional exchange rates.**

This “internal basket” would include regional currencies. An Asian Monetary Unit (AMU)—or Asian Currency Unit (ACU)—was proposed by Mori, Kinukawa, Nukaya, and Hashimoto (2002),<sup>13</sup> Kuroda and Kawai (2003),<sup>14</sup> and Kawai and Takagi (2005).<sup>15</sup> The AMU is a basket of all ASEAN+3 currencies, with weights reflecting each country’s size in terms of GDP and trade volume. The AMU’s value can be defined by way of either an external currency or a basket of external currencies. Ogawa (2006)<sup>16</sup> uses a basket combining the US dollar and the euro, carrying weights of 65% and 35%, respectively (**Figure 73**). While proponents do not explicitly suggest that regional currencies be tied to the AMU, this is one obvious use. Some countries could manage exchange rates to keep external values in line with the AMU within predetermined margins. Under this structure, bilateral exchange rates would be stable. This arrangement’s appeal is that the link to international currencies is indirect and, more importantly, there is no presumption that the AMU—and therefore East Asian individual currencies—would be pegged to any external currency. In fact, if the AMU fluctuates widely against the US dollar or euro, the region’s currencies would fluctuate similarly, maintaining stable bilateral rates.

**Figure 73: AMU Exchange Rate**

(\$-EUR/AMU, benchmark year = 2000/2001)<sup>1</sup>



AMU = Asian Monetary Unit.

<sup>1</sup>Value of one (1) synthetic AMU against a weighted average of the US dollar and the euro—using weights of 65% and 35%, respectively (based on the East Asian countries’ trade volumes with the United States and the euro area). Thus, in the figure above, the value of the AMU in Nov 2010 is 10% higher than the benchmark exchange rate in 2000/2001.

Source: Research Institute of Economy, Trade, and Industry (RIETI), Japan.

**The problem with basket pegs, however, is that the arrangement would be undefined if all regional currencies were included.**

This is the so-called “N-1” problem, a consequence of the fact that N currencies have only N-1 independent bilateral exchange rates. At least one currency must remain out of the mix, and that currency, if alone, would determine how all others fluctuate jointly against external currencies. In effect, it would become an anchor. If two or more currencies were to stay out, AMU movements would represent a weighted-average evolution of two or more currencies, while all others would remain with stable bilateral rates. From an economic viewpoint, there is nothing inherently wrong with this arrangement, but the political aspects are bound to be delicate. If, as is likely, the PRC, Japan, and Korea elect to stay out, then the AMU, and the exchange rates of ASEAN countries, would be driven by the average evolution of the Japanese yen, the PRC renminbi, and Korean won. The principle of averages implies that ASEAN exchange rates would not deviate much from the three “outs”.

<sup>13</sup>J. Mori et al. 2002. Integration of East Asian Economics and a Step by Step Approach Towards a Currency Basket Regime. Paper prepared for the 1st International Conference of Japan Economic Policy Association on Nation States and Economic Policy. Tokyo. 30 November.

<sup>14</sup>H. Kuroda and M. Kawai. 2003. Strengthening Regional Financial Cooperation in East Asia. *PRI Discussion Paper Series*. (03A-10). Tokyo: Policy Research Institute, Ministry of Finance.

<sup>15</sup>M. Kawai and S. Takagi. 2005. Towards regional monetary cooperation in East Asia: Lessons from other parts of the world. *International Journal of Finance and Economics*. 10(2). pp. 97-116.

<sup>16</sup>Research Institute of Economy, Trade & Industry. AMU and AMU Deviation Indicators. <http://www.rieti.go.jp/users/amu/en/> (accessed 1 December 2010). Eiji Ogawa calculates the indicators along with Junko Shimizu.



**Each country targeting its own basket of currencies could also stabilize intra-regional exchange rates if trade structures are similar across the region.**

This alternative suggests that each country stabilize its own currency against its self-defined basket of currencies—the choice of which and the corresponding weights representing each economy’s specific trade structure. If these are similar across the region, the region’s economies are in effect adopting the same basket. Another implication of averaging is that regional bilateral rates would also be stable. In fact, Park and Wyplosz (2004)<sup>17</sup> show empirically that this arrangement provides almost as much stability as pegging to an AMU. By leaving each country free both to define its own basket and to decide on the degree of stabilization vis-à-vis the basket, this approach greatly simplifies political issues while achieving similar economic goals. It also removes the N-1 problem once non-regional currencies are included in individual baskets.

**East Asia’s economies could also choose to peg their currencies directly to each other, allowing the currencies to freely float relative to extra-regional currencies.**

A more ambitious plan would directly peg East Asian currencies to each other and let them float jointly against other currencies. In practical terms, the result would be similar to the basket pegging described above. In fact, the similarity extends to the N-1 problem, which in this case implies that among all countries in the arrangement, one will remain free to carry out its monetary policy independently of the others. This is how the Bretton Woods system operated, leaving US authorities to set the dollar value (in terms of gold). This also applied to the European Monetary System (EMS). But the remaining degree of freedom was never officially attributed to any currency. Over time, the

strongest currency, the German mark, assumed this role informally. Frustration with this evolution finally led other countries to call for a fully symmetric arrangement, the common currency managed by the supranational European Central Bank.

**The strongest form of cooperation would be to adopt a common currency and form a monetary union.**

Adopting a common currency would be the strongest commitment to maintain exchange rate stability. The most obvious parallel was the introduction of the euro. A common currency is clearly a very robust arrangement but—as seen by the ongoing sovereign debt crisis in Europe—it may suffer from fiscal or public debt weaknesses. Given the profound transfer of sovereignty implied by adopting a common currency, it is worth asking whether the euro’s experience during the crisis can be seen as a failure. There is no doubt that European policymakers were taken by surprise. They did not expect contagion and failed to notice the growing current account imbalances within the eurozone. Having been caught unprepared, they had to improvise under heavy market pressure, with their actions both hailed for their audacity and criticized over some longer-run implications. The current concern is whether the risks taken will pay off. There remains a very real possibility that some countries may need to restructure public debt and that contagion would then spread.

**The recent debt crisis in the eurozone shows that stronger institutions than previously thought are required for monetary unions to function properly.**

Europe’s monetary union must be credited for having fully protected internal exchange rates—since they no longer exist. Without the euro, it is likely that some countries would have had a high degree of exchange rate volatility—as for example in the UK and Sweden—possibly linked with a public debt crisis, as was the case in Hungary. A fair conclusion is that the European monetary union has delivered on its main goal—internal exchange

<sup>17</sup>Y.C. Park and C. Wyplosz. 2004. Exchange Rate Arrangements in East Asia: Do They Matter?. In Y. Oh, D.R. Yoon and T.D. Willett, eds. *Monetary and Exchange Rate Arrangements in East Asia*. Seoul: Korea Institute for International Economic Policy. pp. 129-160.

rate stability—but that the system’s imperfections, long-identified by researchers, are now plain for all to see. This episode illustrates a general principle: that economic integration is a dynamic process with each integrative step requiring greater integration down the line. Europe began its integration with a tariff union, then moved to a common market, which then underpinned the search for internal exchange rate stability. The system of fixed exchange rates then gave way to monetary union, which now implies mutual guarantees on public debt. Each step needs the transfer of sovereignty and building new institutions. For East Asia, it would mean that a common currency requires an even more demanding institutional arrangement than previously thought.

### **What are the initial steps toward regional exchange rate cooperation?**

**For East Asia, cooperation needs to be “institution-lite” rather than based on the full range of institutions created for Europe’s monetary and economic union.**

National authorities in East Asia prefer cooperation to be “institution-lite” rather than structured on a full range of institutions. That said, an “institution-lite” approach to exchange rate cooperation in the region does not preclude the possibility of the region adopting a more ambitious approach over the long haul. It places constraints, however, on what might be achievable in the near term.

**A realistic short-term objective would be to reduce intra-regional exchange rate variability, while allowing exchange rates to respond to shocks outside the region.**

Growing trade links have made the region’s economies more interdependent. Intra-regional trade is likely to grow further given global rebalancing and robust growth within the region compared with advanced economies. Thus, a pragmatic goal for regional exchange rate cooperation would be to reduce intra-regional

exchange rate volatility while at the same time allowing flexibility in responding to shocks outside the region. This way, the region would be able to decouple its intra-regional exchange rate policy from its external exchange rate policy. This is especially pertinent in today’s environment where the region needs to realign its currencies vis-à-vis the rest of the world without disrupting intra-regional exchange rates.

### **The adoption of a peg for the region’s currencies looks unlikely for now.**

It is clear the region remains far from forming a monetary union. However, creating a regional exchange rate mechanism modeled on, for example, the EMS, could help decouple the region’s intra-regional and inter-regional exchange rate policies. As mentioned, East Asian economies could link exchange rates indirectly through an artificial currency unit such as the AMU. Still, this approach is not feasible in the near term as it requires either an agreement for one or more of the region’s currencies to be anchors for the system—to determine monetary policy for the entire region—or a sharp jump in the level of monetary cooperation across all the region’s central banks (to determine a region-wide monetary policy). Neither of these are realistic currently. Moreover, many East Asian countries remain skeptical about the benefits of returning to complete exchange rate fixity (even among regional currencies) given the role exchange rate policy currently plays in helping respond to asymmetrical shocks. Also, exchange rate pegs under an AMU-based system could become vulnerable to speculative attacks given the relatively high rate of capital mobility in the region.

**Europe’s experience immediately following the collapse of the Bretton Woods agreement can provide some clues as to how East Asia can initially approach regional exchange rate cooperation.**

Another approach is to examine the European experience following the collapse of the Bretton Woods agreement (see Box 2). Over the past 10 years, East Asia’s policymakers and many others have used the European experience as a sort of blueprint for regional economic and monetary integration—even if it has been long understood that Europe’s path to integration cannot simply be copied. While the ongoing sovereign debt crisis illustrates problems with the European model, it can still provide useful lessons. In particular, Europe’s early attempts at integration may show how the region can initiate a process toward greater regional cooperation on exchange rates. The situation becomes similar to the current East Asian situation where there is interest in maintaining intra-regional exchange rate stability yet with flexibility against currencies outside the region. Following Europe’s example, the region’s economies could agree to peg exchange rates together to limit volatility within the region, but allowing whatever unit is chosen to move freely against currencies outside the region. Initially, the arrangement may be informal but can become more formalized over time—perhaps even into formal agreements with binding commitments.

**The region could start by adopting informal reference or monitoring zones for regional exchange rates to gradually reduce intra-regional exchange rate variability over time.**

This actually mimics the European experience. The reference values under this structure, in and of themselves, would have no intrinsic significance and, most importantly, would not serve as an exchange rate policy target. Rather, any large or persistent deviation from these reference values can serve as a trigger for confidential discussions on exchange rate policies and potential mitigation

policies to narrow deviations. Over time, as confidence in the system evolves into trust in the system, reference values might begin to take on more credence as a form of exchange rate targeting. Initially, however, the system would only act as a framework for discussing exchange rate and other policies to help reduce intra-regional exchange rate variance.

**The reference currency should come from outside the region and monitoring zones be wide enough to allow for some intra-regional flexibility.**

Initially, reference values could be chosen as the most recent values of exchange rates. But they could vary over time based on changes in the underlying equilibrium exchange rates. The reference currency or currencies used should not come from within the region given the N-1 problem. This excludes an AMU. In the near term, the most practical reference currency would be the US dollar—given its role as international reserve currency—although a basket of the dollar and euro could also be used. To allow some flexibility in exchange rates, even while seeking to reduce intra-regional exchange rate variability, the monitoring zones around the reference values would need to be relatively wide (say, plus or minus 5%–10%). They should not, however, be so wide to allow disruptive shifts in the region’s exchange rates that threaten the ultimate goal of greater intra-regional exchange rate stability—and they could narrow over time. In adopting this approach, a simple bilateral grid of reference values and zones for each regional currency could be defined based on agreed reference values based on a reference currency and the sizes of zones around these values.

**Large movements of intra-regional exchange rates outside reference zones would trigger further discussions and consultations.**

Under the reference zone approach, the divergence between the strongest (or weakest) intra-regional currencies in each period could be used to

benchmark divergences between exchange rates in the region. As structured, reference zones for triggering exchange rate discussions would not be crossed if there were simultaneous movements in all the region's currencies against the US dollar (or against any other external currency). However, large differentials between the region's currencies against extra-regional currencies could trigger a move outside reference zones. Because exchange rates are relative prices, there would be no presumption that any particular currency would be at "fault" when pairs of currencies move outside their monitoring zones. Each instance of large deviations from reference values would need to be considered on a case-by-case basis. Moreover, circumstances could arise where some currencies in the region move outside their reference zones because other currencies in the region resisted adjustments in their underlying equilibrium exchange rates. In this case, currencies that did not cross their reference zones would become the source of common concern in the region, rather than the currencies that crossed their reference zones.

**The reference zone arrangement could evolve over time into a more formal arrangement for exchange rate cooperation.**

Over time, as trust and confidence grow, there could be a gradual hardening of the reference values and a narrowing of reference zones. As a result, the system could eventually converge into a more traditional target zone system. But this can happen only gradually. The key reason for the go-slow approach is that any hardening of the system will require a clear agreement on sharing adjustment responsibilities across economies and an agreement on providing external liquidity for market intervention. Also, when exchange rate targets become more binding, the system would need to eventually be integrated with monetary policy frameworks and operating procedures throughout the region. At least in the near term, however, the proposed monitoring system would

not require this level of agreement. The system could be applied under the current ERP framework as a key stepping stone toward gradually achieving greater intra-regional exchange rate stability.

## Conclusion

**The most recent crisis—which originated outside the region—calls for greater regional economic cooperation.**

Crises are extreme events that reveal pre-existing weaknesses. The past 2 years have shown the limits of East Asian financial cooperation—much as flaws in the European monetary union have become the source of deep turmoil. Europe's response has been to deepen integration, extending solidarity and collective oversight. The crisis and recovery show that the demands of economic cooperation are heavier than previously thought. The likelihood of continuing exchange rate instability, including recurring crises, strengthens the appeal of cooperation.

**Regional exchange rate cooperation—if handled wisely—can ensure intra-regional exchange rate stability while allowing inter-regional flexibility; thus helping promote intra-regional trade and rebalance the region's sources of growth.**

Growing interdependence within East Asia and the increasing spillover effect of national policies underscore the importance of regional cooperation on exchange rate policy. Intra-regional exchange rate stability would promote intra-regional trade in goods and financial assets—critical for the region to rebalance its sources of growth more toward domestic and regional demand. Stability among regional currencies also reduces tensions that might arise due to "competitive non-appreciation". The region's currencies also need flexibility against major extra-regional currencies to better manage capital flows and respond to external shocks.

## Regional exchange rate cooperation can begin with informal or “institution-lite” arrangements.

Regional exchange rate cooperation could start with considerably less ambitious goals than the monetary union adopted in Europe. One possible approach would be an informal reference or monitoring zones for the region’s exchange rates—

to reduce intra-regional exchange rate variability over time. Current arrangements in East Asia, such as the CMIM and ERPD—and now backed by AMRO—could support this kind of informal approach. If East Asian economies, or a subset of them, conclude that monetary and exchange rate cooperation should be strengthened, they should aim to carefully craft more ambitious, step-by-step goals over time.

### Box 2: How Did Europe Tighten Cooperation on Exchange Rates?<sup>1</sup>

In general, European governments have long been convinced that exchange rate stability is critical for trade integration.<sup>2</sup> It is no surprise, then, that the 1971 end of the Bretton Woods system of fixed exchange rates triggered a major effort in Europe to reestablish exchange stability *within* the Common Market. Within a year, several countries (European Community members along with Denmark, Ireland, Norway, the United Kingdom, and Sweden) agreed to peg exchange rates together (within a  $\pm 2.25\%$  band) and let them float against the US dollar. This “snake in the tunnel” arrangement was loose, however, because each country remained free to adjust its own

parity, with no mutual surveillance, no reserve pooling arrangement or support agreement. It was merely an official statement of intent without any firm commitment.

In the volatile post-Bretton Woods environment, the Snake suffered numerous withdrawals. European leaders soon recognized that agreements without binding commitments are ineffective. It took several years before the Snake evolved into an Exchange Rate Mechanism (ERM)—the core of the European Monetary System created in 1979. The ERM agreement had two crucial features. First, there was a commitment to unlimited exchange market intervention, symmetrically by strong and weak currency countries, where bilateral rates reached set limits. Second, parity changes were explicitly allowed, but had to be agreed upon by all ERM-members. This last feature led to round-the-clock weekend negotiations (when markets were closed); and while realignments were frequent, no country ever changed its parity without full agreement by the others.

The ERM provides more lessons. It quickly became evident that members had tacitly given up an

important element of monetary policy sovereignty—a recognition that exchange rate stability does not come for free. Importantly, it became clear that the arrangement left one degree of freedom in setting bilateral exchange rates—the so-called N-1 problem. It gradually emerged that this last degree of freedom was captured by Germany, the country with the lowest inflation rate and, accordingly, the strongest currency. Thus the ERM became a “Deutschemark zone”, whereby the Bundesbank retained control of its own monetary policy, while all other countries had to *de facto* peg their currencies to the deutschemark. This paved the way for monetary union. For all countries, except Germany, monetary union meant recovering some control on the common monetary policy by participating in the European Central Bank. Germany was making the real sacrifice, which it accepted as a purely political *quid pro quo* for gaining support for reunification with East Germany.

<sup>1</sup>For more details, see R. Baldwin and C. Wyplosz. 2009. *The Economics of European Integration*, 3rd ed. McGraw Hill, pp. 307–310.

<sup>2</sup>For long, this stood in sharp contrast with the absence of any international backing. It is only recently that evidence has begun to back this view. The turning point was the work on currency unions by A. Rose. 2000. One Money, One Market: The Effect of Common Currencies on Trade. *Economic Policy* 30: 9–45. For a detailed assessment, see P.B. Clark, N. Tamirisa, and S-J. Wei. 2004. A New Look at Exchange Rate Volatility and Trade Flows. *Occasional Paper* 235. International Monetary Fund.