



Munich Personal RePEc Archive

## **Prospects for a Single Asian Currency**

Sen Gupta, Abhijit

Jawaharlal Nehru University

May 2010

Online at <https://mpra.ub.uni-muenchen.de/40181/>  
MPRA Paper No. 40181, posted 20 Jul 2012 10:58 UTC

# Prospects for a Single Asian Currency

Abhijit Sen Gupta\*

## Abstract

This paper evaluates the prospects for greater exchange rate coordination amongst Asian countries. This would help in fostering greater trade and investment linkages within the region and diversification of the reserve currency away from the US Dollar, both of which would shelter Asian economies from events like the recent financial crisis in the future. The paper constructs an hypothetical Asian Currency Unit to evaluate the degree of exchange rate coordination amongst the member countries, and finds that the participating countries have displayed disparate movements against the ACU, indicating the varied objectives of the policymakers. The paper also evaluates role of some of the regional initiatives in encouraging financial and monetary cooperation, and concludes that while these initiatives are extremely important, they need to be significantly strengthened in a world of rapidly changing global financial architecture.

*JEL Classification: E32, E67, F37*

*Keywords: Financial crisis, Common Currency Area, Asian Integration*

---

\* Associate Professor, Centre for International Trade and Development, School of International Studies, Jawaharlal Nehru University,

## **1. Introduction**

The recent global financial crisis has rekindled the debate on the need for greater monetary and financial cooperation among the Asian economies.<sup>1</sup> Most of the Asian economies have been adversely impacted by the fallout of the crisis, with the decline in the growth rate in 2009 in some of these countries being higher than the decline in some of the advanced economies, which were at the epicentre of this crisis. The crisis also had a negative impact on employment and poverty in this region. Nearly 26 million people could end up losing their jobs by the end of 2010. Furthermore, several million people who took decades to work their way out of poverty have fallen back in it within months.

Initially, most of the Asian economies were expected to remain impervious to the collapse of the financial institutions in United States and European Union. The basis of the optimism lay in the fact that most of the financial institutions in Asia were well capitalized. Furthermore, most of these institutions had a limited exposure to the US sub prime assets and mortgage based lending. While this view has been proved to be largely correct, and the direct impact of the United States sub-prime crisis was limited, the region suffered largely from the indirect effect of the financial crisis.

The indirect effects accrued due to greater trade and financial linkages of the Asian economies with the countries that were at the epicentre of the crisis. The global financial crisis transmitted to Asian economies through both the trade and the financial channels. Consequently, one of the obvious ways to prevent such an event from occurring in the future would be to diversify out of overwhelming reliance on the developed countries for trade and finance, and foster greater linkages within the region.

Another factor exacerbating the impact of the crisis was the role played by most Asian economies in worsening of the global imbalances. The primary reason for the rise in global imbalances can be attributed to the use of the US Dollar as the reserve currency. Given that the current international monetary system is driven by sovereign credit there was no effective constraint against the US, which was printing the reserve currency. This allowed the United States to build a huge trade deficit, which was largely due to a sustained decline in United States' savings rate. This current account deficit was able to expand at a tremendous rate from \$113 billion (minus 1.5 percent of GDP) in 1995 to over \$800 billion (minus 6 percent of GDP) in 2007 due to the availability of cheap credit to the US from emerging markets, especially those in Asia.

The Asian crisis of 1997 reinforced the belief that that emerging markets must protect themselves from similar crises, and the key to self protection is liquidity in the form of large foreign exchange reserves. Consequently, most developing and emerging market

---

<sup>1</sup> While Asia constitutes a multitude of countries with diverse characteristics, to keep the analysis tractable we will confine the analysis below largely to the ASEAN members (Indonesia, Malaysia, Philippines, Singapore, Thailand, Brunei Darussalam, Cambodia, Lao PDR, Myanmar and Vietnam), China, India, Korea and Japan.

economies embarked on a drive to increase their stockpile of reserves. The fact that they were successful can be seen from the fact that the stockpile of international reserves of these economies increased by nearly seven times between 1998 and 2009.

Bulk of these reserves was held in the form of low yield US Treasury bonds which were considered to be extremely safe and liquid assets. The attractiveness of these assets was enhanced by the fact that they were denominated in US Dollar, which is the global reserve currency. Consequently, this allowed the United States to access cheap credit in the global capital market, and finance its consumption boom. The large flow of reserves from balance of payments surplus countries drove up the financial and capital account surplus in the United States, which contributed to the lax monetary policy that was being pursued in the United States, and was a key contributor to the sub-prime crisis.

A solution to the above mentioned factors contributing to the spread of the crisis to Asian countries would involve fostering greater trade and investment linkages within the region and diversification of the reserve currency so that the US no longer has a monopoly. Both these objectives can be attained by a move towards a single Asian currency.<sup>2</sup> While on one hand it will create a viable alternative for the Asian economies to park their assets, it will also enhance greater trade, investment and monetary linkages by ruling out exchange rate uncertainty.

The demand for enhanced regional cooperation and move towards greater monetary cooperation is not new in Asia. It was put forward in the late 1990s after the Asian Crisis whereby several Asian countries expressed their dissatisfaction with the nature and the quantum of policy response of the global institutions, particularly the IMF. In an attempt to become more self-reliant, and to prevent the occurrence of similar crises in the future as well as limit the impact of cross-country contagion in the event such a crisis took place, several regional financial and monetary institutions were set up. Furthermore, it was decided that countries would make concerted efforts towards coordinating their currencies with the objective of creating a regional currency.

Following the European experience, the move towards a single currency is likely to be a long term process. Consequently, it was decided to initiate the move by introducing an Asian Currency Unit (ACU). Kuroda and Kawai (2002) point out that the ACU will help to monitor the movement of individual participating currencies relative to the ACU as well as the collective movement of regional currencies against key global currencies.

However, a number of contentious issues have to be resolved while embarking on a move for greater monetary and exchange rate coordination. These include feasibility of Asia as a single currency area, the likely currency composition of the proposed ACU, presence of

---

<sup>2</sup> While the Euro, Pound and the Yen are the traditional contenders for the reserve currency, the recent crisis showed that these currencies were not considered by investors as an alternate to the US Dollar. Between the second quarter of 2008 and third quarter of 2009, US Dollar denominated assets witnessed a 1.2 percentage points decline in international reserve holdings. However, less than half of this decline was compensated by an increase in Euro, Pound or Yen denominated assets. Assets denominated in the currencies of emerging markets increased by 0.7 percentage points.

adequate institutional mechanisms for supporting the ACU etc. This paper attempts to shed light on some of these contentious issues. In Section 2 we briefly discuss the literature on the possibility of Asia as a single currency area. Section 3 evaluates the currency composition of the ACU, analyzing the movement of the ACU against a numéraire currency as well as ascertaining the extent of divergence among the participating countries. Section 4 highlights some of the key constraints in the path of a move towards greater exchange rate coordination and outlines the ways of overcoming these constraints. Finally, section 5 summarizes and concludes.

## **2. Does Asia Qualify for a Common Currency Area?**

A common currency area helps in significantly reducing transaction costs involved with international trade in goods, services, labour and capital. With the adoption of a common currency, there is a decline in exchange rate uncertainty as well as the scope of speculation on changes in bilateral exchange rates, which can result in instability in foreign exchange markets, and have negative effects on countries' internal and external balances. On the other hand, an entry into a common currency area is associated with loss of monetary policy autonomy. This can be a major constraint as monetary policy is an important tool for stabilizing economy. Furthermore, a flexible exchange rate can act as an autonomous stabilizer in the face of an external shock, and by entering into a common currency area a country relinquishes this stabilizer.

The theory of optimum currency area focusing on monetary and exchange rate cooperation amongst a group of countries owes its origin to contributions by Mundell (1961) and McKinnon (1963). One of the most important criteria for countries to establish a common currency area pertains to the nature of the shocks. Mundell (1961) argues that typically countries, which are affected by shocks in a symmetric manner, should form a common currency area. Countries, facing asymmetric shocks can also attempt to form a common currency area, if there is sufficient degree of price flexibility and high labour and capital mobility so as to ensure that there are no persistent pockets of unemployment. Other relatively less important criteria include similarity of preferences over output-inflation trade-off and provision of supporting policies like fiscal transfers.

However, Frankel and Rose (1998) pointed out that some of the traditional pre-requisites for establishing a common currency area can develop once countries have established a currency area by fixing their exchange rates. In particular, the establishment of a common currency area can lead to an increase in the degree of economic integration as well as symmetry of economic shocks. Thus so long as participating countries exhibit strong political commitment to coordination of monetary and exchange rate policies, their attempt to form a currency area can be successful provided they meet the common currency area criteria to some extent initially.

The next issue relates to whether the countries of Asia comply with the standard common currency criteria for the adoption of a single currency. Eichengreen and Bayoumi (1999) focus on the trade and FDI integration, speed of adjustment to shock and symmetric supply and demand disturbances, and conclude that the region satisfies the standard criteria. Kawai and Motonishi (2005) point out that a number of East Asian countries

have witnessed a rapid increase in intra regional trade. Much of this rise in intra regional trade largely reflected intra-industry processing and assembly through vertically integrated production. IMF (2007) shows that while trade flows in the rest of the world increased by three times between 1990 and 2006, inter-regional trade involving emerging Asia rose by 5 times, and intra-regional trade within emerging Asia increased by 8½ times. By 2006, trade between the emerging Asian economies had increased, from 30 percent of total exports by the region in 1990, to more than 40 percent.

Another important prerequisite is the degree of factor market integration. In Asia, there is a great deal of variation in the degree of labour market integration. More developed economies like Japan and Korea tend to maintain tight restrictions on labour mobility. On the other hand, Southeast Asian economies of Thailand, Malaysia and Singapore are characterized by greater labour mobility. Eichengreen and Bayoumi (1999) and Goto and Hamada (1994) note that labour markets are more flexible in Asia than they were in Europe in early 1990s, when they embarked on a common currency.

Thus the existing literature points at Asia satisfying some of the standard common currency criteria. However, as discussed above that a key deterrent to the adoption of a common currency is the relinquishment of monetary policy. Thus the distinction between a common currency and a parallel currency becomes important here. The former refers to an arrangement where the participating countries surrender sovereignty over currency creation and monetary policy. In contrast, under a parallel currency, member countries retain control over their currencies and monetary policies and agree to participate in the creation of a joint currency that is allocated among members according to pre-determined rules. While Asia may not be ready for a common currency, Mundell (2001) and Eichengreen (2006) point out that it is ready to adopt a parallel currency.

### **3. The Asian Currency Unit: A Parallel Currency**

A key issue in the formulation of the Asian Currency Unit is the inclusion of participating currencies. Typically, the Asian Currency Unit should include currencies of countries that satisfy some of the criteria mentioned in Section 2. Most studies of ACU have included the ASEAN plus three currencies in formulating an ACU.<sup>3</sup> Here we argue for the inclusion of the Indian Rupee into the basket. India is an important economy in the region and in 2007 accounted for close to 9 percent of regional nominal GDP, 18 percent of regional GDP based on purchasing power parity and 7 percent of regional exports. Furthermore, since the ACU is being considered to be a precursor to a common currency in the future it needs to have a dynamic outlook of the region. According to Goldman and Sachs (2003), India is poised to become the third largest economy in the world and the second largest economy in the region by 2050.

Over the last few decades India has also attempted to foster greater trade and investment linkages with the countries of East Asia. In this attempt, India launched the Look East

---

<sup>3</sup> Japanese government's Research Institute of Economy, Trade and Industry (RIETI) also has a similar basket of currencies.

Policy in 1992. India has entered into several trade agreements with its South and East Asian neighbours. These include the Comprehensive Economic Cooperation Agreement with Singapore, Asia Pacific Trade Agreement, Comprehensive Economic Partnership Agreement with Korea and Free Trade Agreements with ASEAN. In addition, India is negotiating such agreements with several other countries of the region including Japan, Malaysia, and Thailand.

In addition, India has a large infrastructure gap that needs financing and Japan, Korea and Singapore have expressed interest in financing part of this gap. In recent years India has emerged as one of the top destinations for foreign direct investment. Japan has made several key investments in India. These include New Delhi's metro subway system and Maruti. Japan has also agreed to provide one-third of the funding for the \$100 billion, 1,500 kilometre Delhi-Mumbai freight and industrial corridor. India and Japan have already signed a bilateral currency swap agreement worth \$3 billion. Korea has also forged several investment linkages with India. Several Korean companies like Daewoo, Hyundai, Samsung and LG have a significant market share in the automobiles and electronic segments in India. Singapore has also emerged as key source of FDI with Temasek Holdings making significant investments in India's financial, pharmaceutical, logistics and information technology sectors.

Given India's growth potential and the rising trade and investment linkages with South and East Asia, there is a strong case for inclusion of India in the ACU. In the analysis below we include the Indian Rupee along with ASEAN plus three currencies.

The ACU is designed to monitor the collective movement of Asian currencies against a numéraire currency. Thus it will depend on the weights assigned to different participating currencies in the basket and the value of these currencies in terms of the numéraire currency. Given the existing importance of US Dollar in the intra regional trade, we employ it as the numéraire currency.

$$\varepsilon_{ACU,t}^{\$} = \sum_i \lambda_i \varepsilon_{i,t}^{\$} \quad (1)$$

where

$\varepsilon_{ACU,t}^{\$}$  is the value of the ACU in terms of the US Dollar at time t i.e. the number of units of US Dollar that can be purchased with one unit of the ACU,

$\lambda_i$  is the share of the  $i^{\text{th}}$  currency in ACU, and

$\varepsilon_{i,t}^{\$}$  is the value of the  $i^{\text{th}}$  currency in terms of the US Dollar at time t.

The weights assigned to the various countries are indicative of their relative economic and political importance. The economic importance of the country can be gauged by either its share in GDP or in trade. To trace the movement of the participating currencies against the regional benchmark as well as the ACU against the numéraire currency, we need to choose a base year i.e. a year when the key macroeconomic indicators of the participating countries were close to each other. The rationale being that members of a common currency area need to follow a coherent set of domestic policies for the common currency area to be stable. The Maastricht convergence criteria for joining the European

Economic and Monetary Union were established precisely for the purpose of ensuring coherent policymaking. It focused on convergence of government deficit, government debt, inflation rate, exchange rate and long term interest rate. We focus on these indicators as well as current account deficit, and find that the divergence among these indicators was least in 2001, and take it as the base year.

Table 1 below highlights the weights accorded to the 14 economies according to nominal GDP based on exchange rates, GDP based on purchasing power parity and exports. Thus if one was to assign weights according to the nominal exchange rate then in 2001 one unit of the ACU would include \$0.59 equivalent of Yen, \$0.19 equivalent of Yuan, \$0.07 equivalent of Rupee, \$0.07 equivalent of Won and so forth. Given the bilateral exchange rate between the Asian currencies and US Dollar it implies that the ACU would comprise 71.6 units of Yen, 1.58 units of Yuan, 3.25 units of Rupee, 80.4 units of Won and so on. The weights and the composition of the ACU expectedly changes when we use purchasing power parity GDP and exports. It is assumed that 1 unit of the ACU is equivalent to 1 unit of US Dollar in the base year.

Table 1: Composition of the Asian Currency Unit

	Bilateral Exchange Rate (\$) 2001	Nominal GDP		Purchasing Power GDP		Exports	
		Weights	Units	Weights	Units	Weights	Units
Brunei Darussalam	1.79	0.0008	0.00	0.0014	0.00	0.0027	0.00
Cambodia	3916.33	0.0006	2.24	0.0012	4.66	0.0015	5.68
China	8.28	0.1906	1.58	0.3124	2.59	0.2076	1.72
India	47.19	0.0688	3.25	0.1562	7.37	0.0423	1.99
Indonesia	10260.9	0.0231	236.83	0.0498	510.69	0.0434	445.50
Japan	121.53	0.5892	71.60	0.3107	37.75	0.2999	36.44
Korea, Rep.	1290.99	0.0693	89.49	0.0729	94.18	0.1263	163.05
Lao PDR	8954.58	0.0003	2.26	0.0007	6.14	0.0003	3.09
Malaysia	3.8	0.0127	0.05	0.0207	0.08	0.0710	0.27
Myanmar	6.68	0.0009	0.01	0.0025	0.02	0.0020	0.01
Philippines	50.99	0.0102	0.52	0.0175	0.89	0.0243	1.24
Singapore	1.79	0.0123	0.02	0.0124	0.02	0.1137	0.20
Thailand	44.43	0.0166	0.74	0.0303	1.35	0.0528	2.34
Vietnam	14725.2	0.0047	68.86	0.0113	166.78	0.0123	181.24

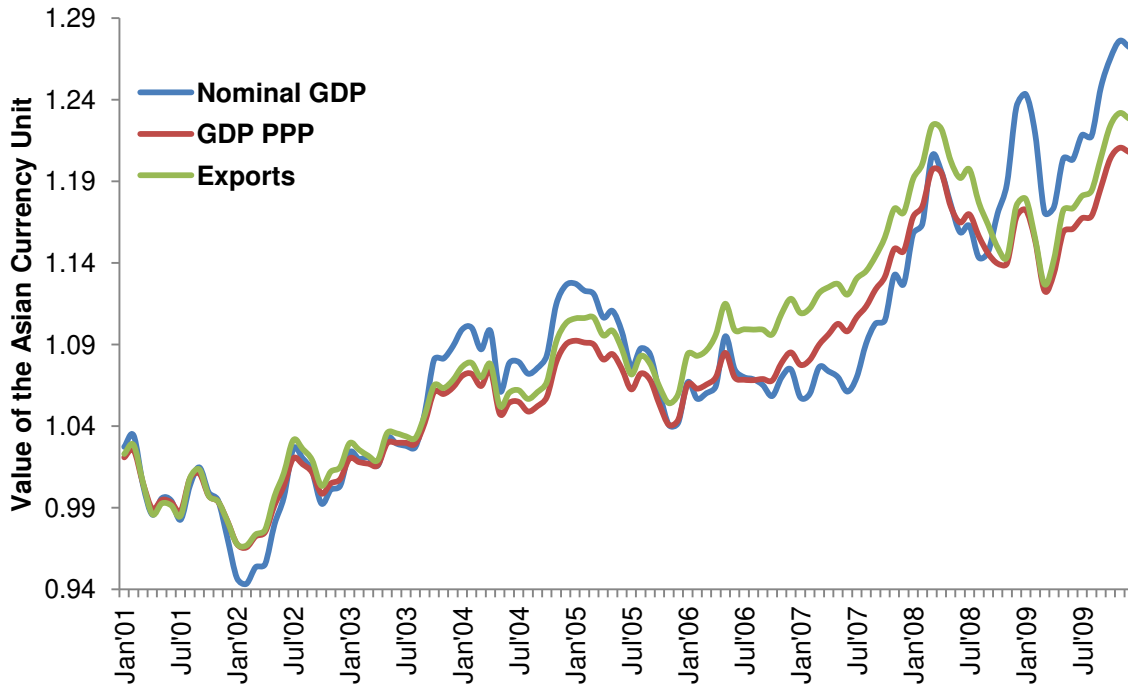
Figure 1 indicates the movement of the constructed ACU from 2001 to 2009. The ACU is most volatile when weights are based on nominal GDP and least volatile with weights based on purchasing power parity GDP. This is primarily due to the fact that with nominal GDP based weights, Japanese Yen carries the highest weight and the Yen has fluctuated significantly against the Dollar during the past nine years. In contrast, when weights are assigned according to purchasing power parity GDP, Chinese Yuan carries the highest weight, which has been pegged against the Dollar through most of this period.

Across the various weights there is a decline in the value of the ACU vis-à-vis the US Dollar by about 4 to 6 percent in 2002 compared to 2001. Thereafter, the ACU strengthened against the US Dollar till 2004 as most of the major Asian currencies gained



against the Dollar. Between 2004 and 2006 the value of ACU varied depending on the weights assigned to the various currencies. Since in the nominal GDP based ACU, Japan was accorded the highest weight, and the Japanese Yen depreciated by 7 percent against the US Dollar the ACU weakened by 2 percent. In contrast, the rise in the export based ACU was driven by the strengthening of Korean Won, Malaysian Ringgit, Thai Baht and Indonesian Rupiah. These currencies are given a higher weight when weights are based on export share than when they are based on GDP share. The ACU gained between 8 to 10 percent between 2006 and 2008 since the Asian currencies appreciated against the Dollar. With the transmission of the global financial crisis to Asian shores there was a weakening of most Asian currencies, barring Japanese Yen, as investors resorted to ‘flight to safety’. This led to a weakening of ACU in late 2008 and first half of 2009, especially when we use weights based on purchasing power parity GDP and exports. Subsequently, with the revival in investor confidence, capital started flowing back into the Asian countries in the second half of 2009, and this resulted in a strengthening of the ACU.

**Figure 1: Movement of the Asian Currency Unit against the Dollar**



Source: Author's calculation

The other objective of creating a parallel currency is to be able to monitor the movement of the participating currency against the regional benchmark. This would help in evaluating if the various Asian currencies are moving in a similar manner or in different directions. To monitor the movement of the participating currencies we use the following arbitrage condition

$$\varepsilon_{i,t}^{ACU} = \varepsilon_{i,t}^{\$} \varepsilon_{\$,t}^{ACU} \quad (2)$$

The above condition states that the value of a participating currency in terms of the ACU is a product of the bilateral exchange rate between the currency and US Dollar and the value of the US Dollar in terms of the ACU. To trace the movement of individual participating regional currencies relative to the ACU we look at the percentage deviation of these currencies from the ACU relative to the base year. We define percentage deviation as:

$$\% \Delta D = \frac{\varepsilon_{i,t}^{ACU} - \varepsilon_{i,0}^{ACU}}{\varepsilon_{i,0}^{ACU}} \quad (3)$$

Here  $\varepsilon_{i,0}^{ACU}$  is the value of the participating currency in terms of the ACU in the base year. The base year value is calculated by taking annual average of the monthly values. Figure 2 traces out the percentage deviation of the participating currencies vis-à-vis the ACU. The results are similar irrespective of the weights used for the creation for ACU.<sup>4</sup> It is evident that there is a lot of divergence in the performance of the individual currencies against the ACU. The Chinese Yuan and the Malaysian Ringgit moved in identical manner between 2001 and 2005, by virtue of being pegged to the Dollar, and had weakened by 11 percent by early 2005. With both these countries abandoning the peg in mid 2005, the Yuan and the Ringgit appreciated strongly between 2005 and 2007, and were 2.2 percent and 4.4 percent stronger compared to the base year. This was both because of the ACU weakening against the Dollar and the Yuan and Ringgit strengthening against the Dollar. Since then, while the Yuan has fluctuated within a narrow range, the Ringgit depreciated considerably, and by end 2009 was 12 percent weaker compared to the base year.

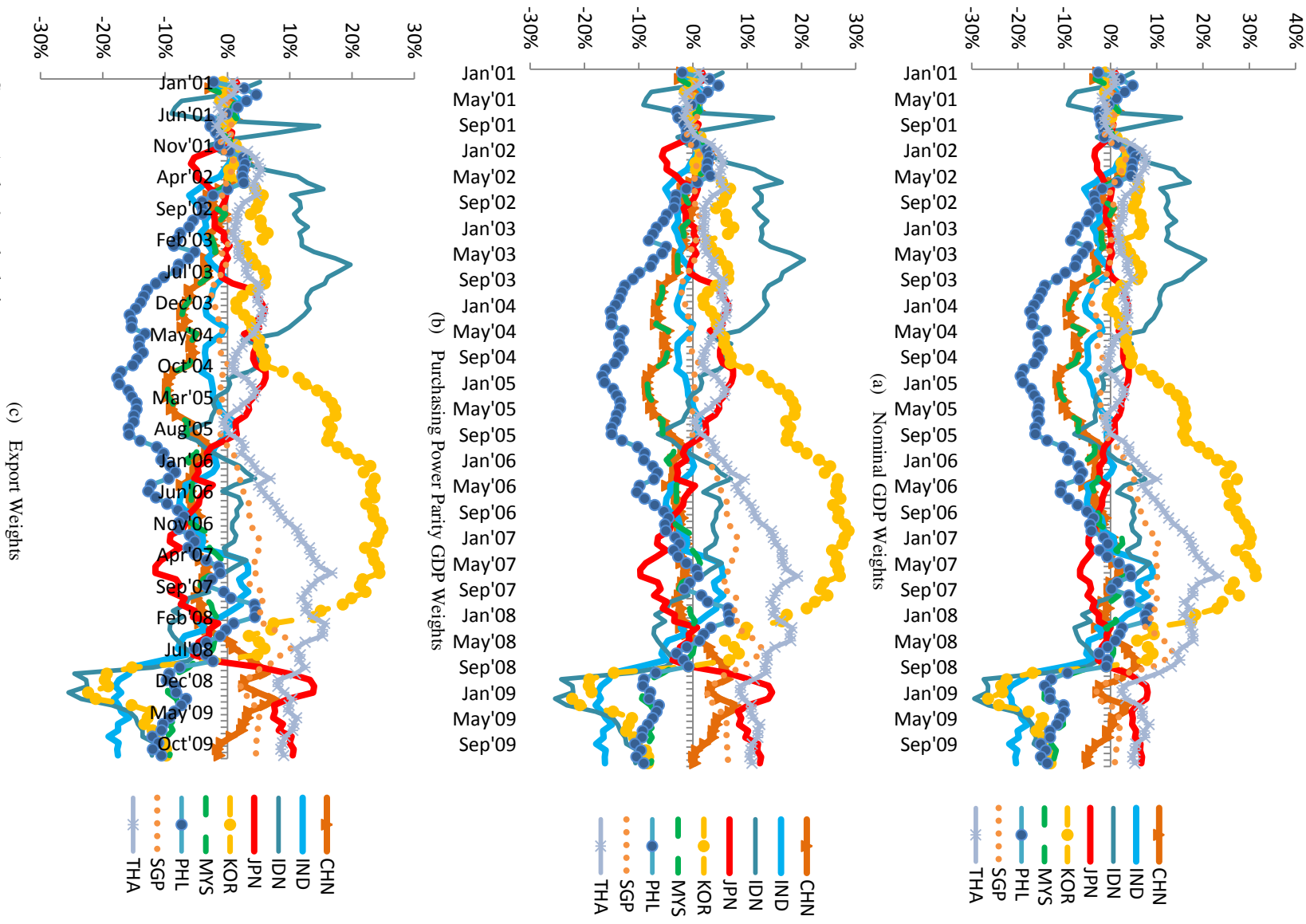
The Japanese Yen remained relatively steady against the ACU, largely on account of the high weight accorded to the Yen in ACU. However, it appreciated strongly against the ACU in 2008 and 2009. The other currency, which gained against the ACU during this period, was the Thai Baht. The Baht appreciated by nearly 24 percent in mid 2007 compared to its base year value. However, the global financial crisis and the associated capital flight led to a subsequent weakening of the Baht. Nevertheless, even in end 2009, the Baht was about 5 percent stronger than its base year value.

The Indian Rupee was also relatively steady against the Dollar for most of the period between 2001 and 2006. However, thereafter there has been an increase in its volatility with the Rupee appreciating by 5 percent in 2007 but depreciating sharply thereafter. This is largely explained by the Rupee's proximity to the US Dollar, which as described above declined considerably over this period. On the other hand, the Korean Won, which had strengthened significantly against the ACU between 2001 and 2007, sharply weakened since then. By end of 2009, the Won had weakened by 13 percent against the base year, depreciating by 20% between 2007 and 2009. The Indonesian Rupiah also followed a similar trend i.e. it strengthened against ACU by 15 percent between 2001 and 2003 but thereafter remained weakened till mid 2005. It recovered some of its value between 2006

---

<sup>4</sup> In the interest of clarity we have not traced out the percentage deviation of the smaller ASEAN member states in Figure 2 i.e. Brunei Darussalam, Cambodia, Vietnam, Lao PDR and Myanmar. The results are available from the author.

**Figure 2: Deviation of the Participating Currencies vis-à-vis the Asian Currency Unit**



Source: Author's calculation

and 2007, but sharply deteriorated thereafter. By early 2009, the Rupiah had become weaker by 31 percent against its base year value, although there has been a modest recovery in recent months.

In contrast, the Singapore Dollar remained steady against the ACU through most of the period between 2001 and 2006. It strengthened rapidly between 2006 and 2008 before losing some its value in the aftermath of the financial crisis. The Philippine Peso has shown some distinct trends. It weakened by nearly 20 percent between 2002 and 2004, but thereafter staged a smart recovery appreciating by nearly 34 percent between early 2005 and end 2007. However, thereafter it has again lost some of its value and was weaker by 14 percent compared to its base year value.

Tracing out the path of the individual currencies against the regional benchmark, one finds that there is a great deal of disparity in exchange rate movement of the participating countries, indicating that there is limited degree of exchange rate coordination among the various countries. In such cases, participating countries will have to negotiate amongst themselves some kind of a mechanism, which will ensure greater coordination. Given the economic and political diversity of the participating states, a system as tight as the ERM will not be advisable. Countries will have to discuss some alternate strategies, some of which are discussed in the next section.

#### **4. Regional Economic and Monetary Cooperation**

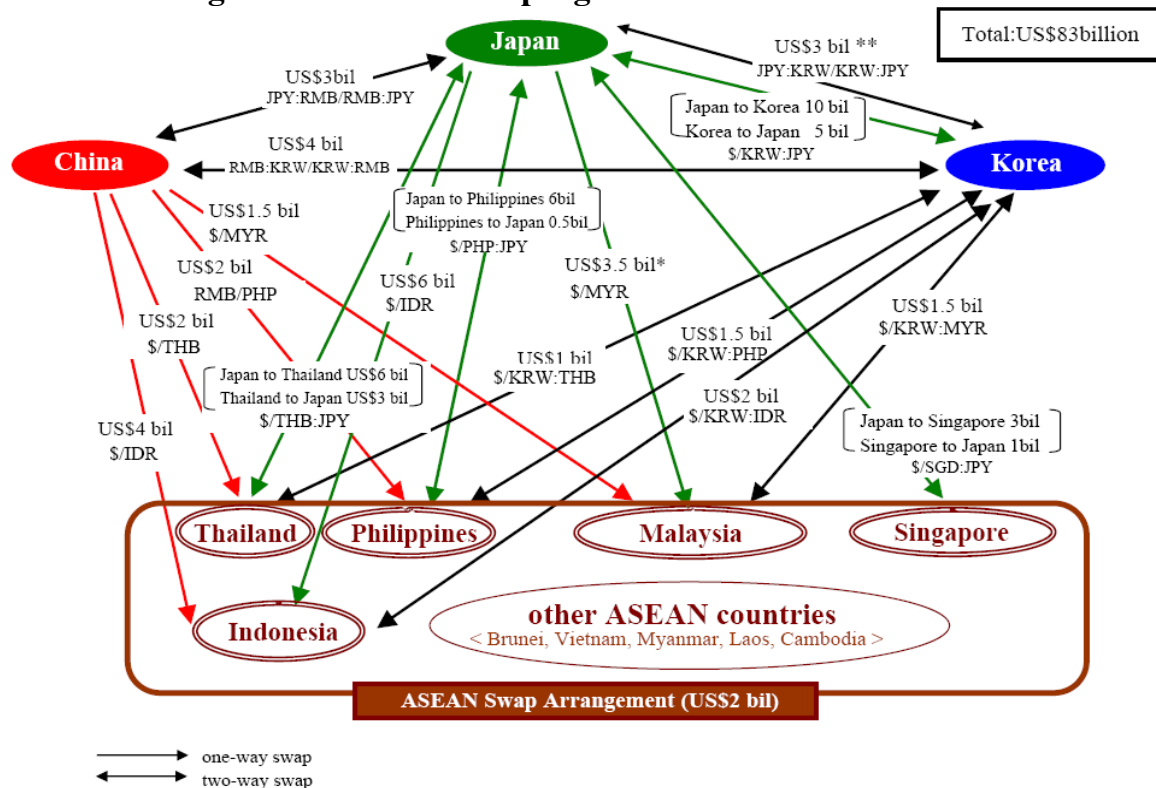
The pursuit of a goal of greater exchange rate cooperation will have to be associated with increased monetary, financial and economic cooperation. This is important as countries will have to overcome the historical inertia associated with the use of national currencies. Countries will have to agree to denominate intra-regional trade, securities and assets in terms of the regional benchmark to enhance its acceptability. Furthermore some of the existing regional initiatives will have to be strengthened so as to ensure regional economic and monetary stability in the case of an adverse shock to some of the participating countries.

To ensure greater exchange rate cooperation, it is important to have some kind of a mechanism that will provide collective defence to participating currencies when they come under a speculative attack, The Chiang Mai Initiative was created primarily to address this concern. The Initiative is made up of two components. The ASEAN Swap Arrangement (ASA), had come into being in 1977 with ASEAN 5 countries establishing a reciprocal currency or swap arrangements. The primary objective of this mechanism was to provide liquidity support against balance of payments difficulties. When the CMI was announced at the ASEAN+3 Finance Ministers' Meeting in 2000, the ASA was expanded to all current ASEAN members. The total amount available for swap transactions under ASA has increased from US\$200 million to US\$2 billion.

The other component constitutes a network of bilateral swap agreement (BSAs) between China, Japan and Korea with the ASEAN 5 member (Figure 3). This bilateral nature of the swap arrangements is a big constraint mitigating the effectiveness of the Initiative.

Under the bilateral arrangement the activation of the swaps need to be approved by each lender. Under such circumstances the CMI loses its effectiveness if individual members refuse to activate the swaps or demand different terms and conditions, resolution of which can be time consuming, and can prevent the swap requesting country from mounting an effective defence against speculative attacks. Thus there have been several demands to multilateralize these existing bilateral swap arrangements so that swap disbursements are made in a concerted and timely manner. In its May 2005 meeting, apart from multilateralizing the initiative, there were also proposals to develop an effective regional surveillance, expand the size of the bilateral agreements and increase the amount a country can draw without being subject to an IMF program. While the amount that a country could draw without being subject to an IMF program was raised from 10% to 20%, the size of the network of BSAs increased from \$36.5 billion in April 2004 to \$83 billion in December 2008.

**Figure 3: Bilateral Swap Agreements under the CMI**



Source: Ministry of Finance, Government of Japan

The recent global financial crisis has renewed the calls for greater Asian financial cooperation. A number of proposals to increase trade and financial linkages were put forward at the ASEAN+3 finance minister's meeting held in Phuket, Thailand in February 2009. It was also agreed to expand the scale of the regional foreign exchange reserve pool from the initially-agreed level of \$80 billion to \$120 billion. In May 2009, ASEAN+3 finance ministers agreed to replace the existing bilateral CMI with a multilateralised form Chiang Mai Initiative Multilateralized (CMIM), which would have an expanded resource pool of \$120 billion. In the new Initiative, Japan and China are to contribute \$38.4 billion (32%) each, with China's share including \$4.2 billion from Hong

Kong. Korea is the next largest donor with \$19.2 billion (16%). The East Asian economies of Indonesia, Singapore, Thailand and Malaysia, which agreed to provide \$4.77 billion (4%) each with Philippines committing 3.1% and Vietnam contributing slightly less than 1%.

However, despite the recent overhaul, the CMIM is yet to acquire a pan-Asia character and has remained an East Asian initiative. A key reason for the setting up the CMI was to break the hegemony of the IMF, which was seen as not being conducive to the developing countries interests. Indeed several studies like Sachs (2003) and Stiglitz (2003) have extensively questioned the IMF policies in East Asia. While the CMIM has increased its resource pool by 50% it has to contend with a resurgent IMF. At the 2009 G-20 meeting in London, there was a proposal to triple IMF's resources from \$250 billion to \$750 billion. In addition the G-20 countries authorised the IMF to issue another \$250 billion as SDRs.

Thus if the CMIM is to prove itself as a viable alternative there is a need to expand both in terms of resources available as well as participating countries. Despite the recent increase in the resources committed to CMIM, \$120 billion is a relatively small amount in the current world of cascading markets and meltdowns. The total amount committed under CMIM is significantly less than what was required to bail out just one financial institution in the US (AIG's bailout cost the US government \$180 billion). The resource pool could be enlarged by greater commitment of resources from the existing members as well as inviting newer members. The latter issue could be addressed by expanding the membership initially to include the members of the East Asia Summit (EAS). Apart from ASEAN+3 countries the East Asia Summit includes India, Australia and New Zealand.

Another critical requirement for countries attempting exchange rate coordination is the presence of an effective regional surveillance mechanism. Such a mechanism should monitor the national policies of the participating countries and ensure that no country follows a policy that could be destabilizing for the region. The fact that the CMI swaps are linked with IMF disbursements with a country being able to borrow only up to 20 percent of the swap if it is not under an IMF programme, indicates the absence of an adequate surveillance mechanism within the region. The ASEAN+3 Economic Policy Review and Dialogue Process, which is a regional surveillance system, has several glaring inadequacies. The process includes the preparation of a confidential staff report by the ADB, which is reviewed by the policymakers of the member countries, discussed at a finance ministers' meeting and thereafter is brought out as an agreed ministerial statement. However, since the final document is vetted by the various ministers, it is largely inoffensive in nature and does not underpin countries following regionally destabilizing policies. Moreover, unlike the IMF surveillance, the ASEAN+3 process does not specify the precise content of the information each government needs to provide. Consequently, reporting countries have large discretion over the quality information made available to the various members, making it difficult to draw comparisons among the various countries and provide policy related conclusions.

The existing ASEAN+3 surveillance mechanism has to be significantly strengthened for it to play an effective role in ensuring economic cooperation. Kenen and Meade (2008) and Girardin (2004) point out that Asian economies mostly follow a policy of not intervening in other countries' affair, which needs to change. Kenen and Meade (2008) and Grenville (2004) suggest a mechanism whereby an independent surveillance team reviews the performance of an economy and submits a report, and the member country government is allowed to respond to the submissions. A healthy debate on major macroeconomic and financial sector issues impacting the reporting country is a must for better surveillance and greater coordination.

As stated above, one of the key factors that have been identified as drivers of the current financial crisis is the extent of global imbalances i.e. the pattern of large, persistent current-account deficits in US and, to a lesser extent, Britain and some other rich economies, matched by surpluses in emerging markets, notably China. Several studies including Caballero and Krishnamurthy (2009) and Caballero et al. (2009) argue that high savings rate and rapid growth in the Asian economies led to a large demand for riskless assets. This resulted in a surge of capital flowing into the US and creating an asset bubble that eventually crashed and compromised the financial sector. The primary reason why Asian savings had to find their way into the US was the inability of these countries to create savings vehicles to keep up with the rapid growth, due to immature financial markets.

This brings to the fore the question as to how one can design regional initiatives to ensure effective use of the regional savings and confine financial intermediation within the region. It was precisely to address this question the Asian Bond Fund Initiative was set up in 2003. The 11 members of the Executives' Meeting of East Asia and Pacific (EMEAP) Central Banks agreed in June 2003 to establish the ABF, a regional investment fund investing in sovereign and quasi-sovereign bonds denominated in U.S. dollars.<sup>5</sup> The initial corpus was \$1 billion with various governments contributing about 1% of their reserves. The Fund was to invest in government bonds issued by eight countries, the developed countries of Australia, New Zealand and Japan only being lenders to the ABF. The move represented an attempt by Asian governments to promote greater regional financial integration particularly in the bond market and to eventually help financing private sector investment in Asia. As pointed out by Rajan (2008), the key objectives of developing a bond market included moving away from bank lending to bond financing, minimizing the vulnerability emanating from 'fickle' international investors, lowering the vulnerability to uncovered US dollar borrowing, and finally enhancing regional liquidity.

However, there were several problems with the original version of this initiative. For one it could invest only in bonds denominated in US Dollars, which meant that it was unable to resolve an insolvency crisis of an Asian bond issuer on occasions involving sharp declines in values of Asian currencies vis-à-vis the U.S. dollar leading to the critical problem of 'currency mismatch'. By borrowing in dollars and investing in domestic

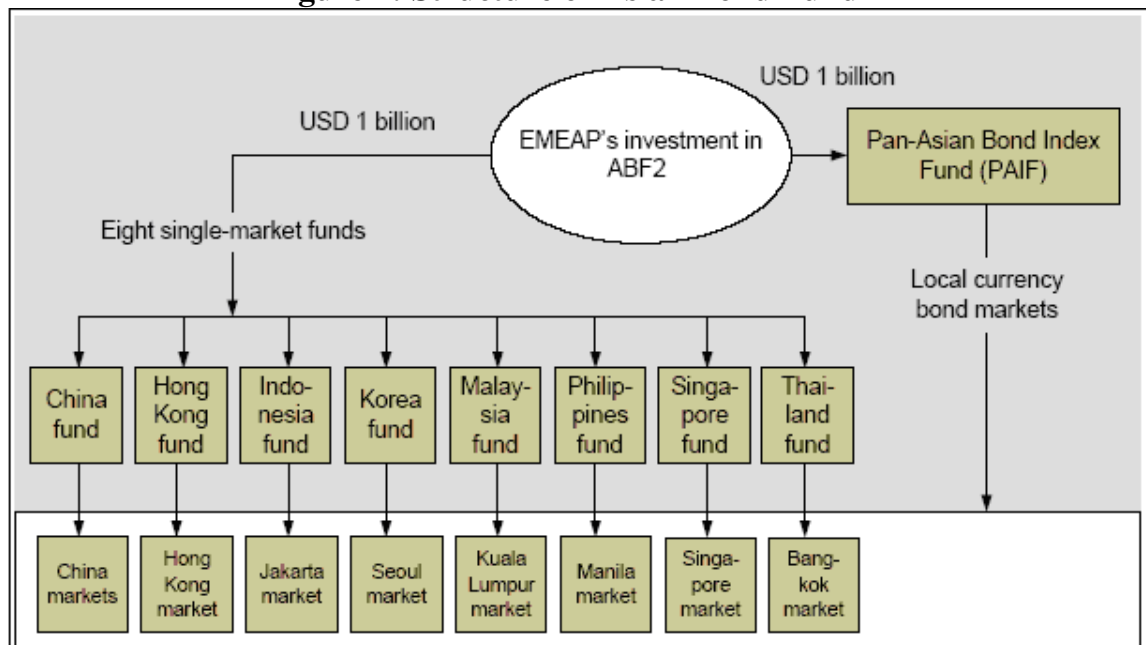
---

<sup>5</sup> The EMEAP comprises of central banks of eleven economies: Australia, China, Hong Kong Indonesia, Japan, Korea, Malaysia, New Zealand, Bangkok Philippines, Singapore, and Thailand.

projects like housing and irrigation, the Asian countries were being asked to take risks similar to the kind they were taking prior to the 1997 crisis. Furthermore there were issues related to maturity mismatch. Majority of the bond issuers are private and using funds for long-term investments. However, foreign lenders are mostly short-term creating the possibility of their withdrawing and reducing risk exposure under adverse business conditions.

Recognizing the need to develop a local currency denominated bond market and to address the maturity and currency mismatches ABF 2 was launched in December. The fund available with this initiative was doubled to \$2 billion. As described in Figure 4, ABF 2 consists of nine component funds – a Pan-Asian Bond Index Fund (PAIF) and Fund of Bonds Fund (FoBF). The PAIF is a single-index bond fund with a corpus of \$1 billion and invests in sovereign and quasi-sovereign local currency-denominated bonds issued in the eight EMEAP markets.<sup>6</sup> In contrast, the FoBF is a two-tier structure consisting of a parent fund, which in turn invests in eight country funds. These eight single market funds have a combined corpus of \$1 billion and each of these funds invest in sovereign and quasi-sovereign local currency-denominated bonds issued in the respective EMEAP market. The purpose of these country sub-funds are two folds. While they provide local investors with low-cost and index-driven investment vehicles, they also give regional and international investors the flexibility to invest in the Asian bond markets of their choice.

**Figure 4: Structure of Asian Bond Fund 2**



Source: Ma and Remonlona (2006)

<sup>6</sup> Of the 11 members of EMEAP, the advanced economies of Japan, Australia and New Zealand are net lenders.



Like the Chiang Mai Initiative, one of the key concerns of the Asian Bond Fund is related to the size of funds. With only \$2 billion, ABF 2 is severely cramped to meet the infrastructural requirements of the region. The original ABF proposal had suggested governments to voluntarily contribute about 1% each of their reserves to a fund dedicated to purchasing regional bonds. Despite the recent decline in reserve holdings of most countries, the cumulative reserves held by the EMEAP members continue to be in excess of \$3.7 trillion.<sup>7</sup> Therefore even if the existing members were to commit the originally suggested resources to this endeavour, the size of the fund would magnify to \$37 billion. With different countries in the region exhibiting varying degrees of current account deficits and surpluses, there is an urgent requirement of a strong bond market, which will enable useful absorption of intra-regional debt flows. Thus there is a strong need for the existing members to commit a greater share of resources towards this fund. The other concern is related to the coverage of countries. The current structure of ABF excludes the smaller ASEAN members as well as other important countries like India. The inclusion of India, which has a reserve stockpile of around \$250 billion, would also help augment the funds available with ABF.

Finally, the diverse movement in participating countries currencies vis-à-vis the ACU can largely be explained by the different exchange rate regime followed by these countries. The divergence in exchange rate regime signals the difference in the priorities of the monetary and exchange rate policy. In Table 2 we list out the exchange rate regime practiced by the participating countries according to IMF's de facto classification of exchange rates regimes and monetary framework.

Table 2: Classification of Exchange Rate Regime

Exchange Rate Regime	Countries
Currency Board Arrangement	Brunei Darussalam
Other Conventional Fixed Peg Arrangement	Vietnam
Crawling Peg	China
Managed Float with no Predetermined Path	Cambodia, India, Indonesia, Lao PDR, Malaysia, Myanmar, Singapore and Thailand
Independently Floating	Japan, Korea, Philippines

Source: IMF's De Facto Classification of Exchange Rate Regimes and Monetary Framework (2009)

Reconciling such diverse priorities is likely to prove to be a very difficult challenge. In particular, the prospect of giving up monetary and exchange rate policies as instruments to stabilize the economy will be extremely challenging for the countries in the region. It is for this reason that the region should initiate the adoption of a parallel currency, which will allow countries to retain sovereignty over their monetary policy, and foster greater economic coordination. A number of alternatives have been put forward in the literature, but they all have an associated cost. Oh and Harvie (2001) propose replicating the EMS's Exchange Rate Mechanism in the region. However, with the different characteristics of the Asian economies, the ERM should be adopted in the Asian case with notable differences. An ACU similar to the one developed in Section 3 can be put in place, with

---

<sup>7</sup> It includes the original 11 members of EMEAP. Here China's reserve holdings are inclusive of reserves held by Hong Kong.

participating members agreeing to float their currencies within a  $\pm 15$  percent band of the central parity. This kind of an arrangement will lower interregional volatility of both nominal and real exchange rates resulting from intraregional parity changes and result in a greater degree of co-movement of intraregional exchange rates. However, since the target is a basket of member country currencies, realignments between currencies outside the basket is not reflected in bilateral exchange rates.<sup>8</sup>

In an alternate arrangement, Dornbusch and Park (1999) proposed the idea of monetary cooperation among Asian economies with Japanese Yen as the anchor currency, a role performed by the German Deutsche Mark under the ERM. However, given that the Japanese economy has not been in very robust health in recent years, and the rising economic stature of other economies like China and India, it will be difficult to push the proposal. Moreover such an arrangement will entail a loss of competitiveness of Asian exports vis-à-vis other dollar blocs like MERCOSUR and NAFTA if Yen appreciates against U.S. Dollar.

Another alternative suggested by Williamson (1999) involves the adoption of a common currency peg against a combination of the major currencies of the world viz. the U.S. Dollar, Euro and Japanese Yen. This would result in stabilizing the exchange rates of the participating currencies both internally as well as vis-à-vis other major trading partners, Euro Area and the U.S.<sup>9</sup> This arrangement allows simultaneous coexistence of various exchange rate regimes. Moreover, the arrangement requires limited degree of policy coordination and surveillance due to a unilaterally chosen parity and band. However, a major limitation of the arrangement is adoption of common regional weights against target currencies. If some participating country's trade share (weights) vis-à-vis the target countries is very different from the region as a whole then a change in bilateral exchange rates of target currencies will have a skewed impact on these countries and they will experience a loss of export competitiveness.

## **5. Conclusion**

Most of the Asian countries have been hit hard by the ongoing financial crisis debunking the myth of the decoupling hypothesis. Despite having limited exposure to the toxic sub-prime assets, some of the Asian economies have been hit harder than countries, which were at the epicentre of this crisis. This was primarily due to greater trade and financial

---

<sup>8</sup> For example, if the U.S. Dollar depreciates against the Euro but not the Japanese Yen then exports from countries pegged to the U.S. Dollar will become more competitive in Euro land compared to these Asian economies. Similarly, if the Japanese Yen appreciates by 10% against the U.S. Dollar and Japan has 50% weight in the ACU, then other members of the ACU will witness a 5% appreciation, which may reduce their competitiveness vis-à-vis other dollar bloc countries

<sup>9</sup> Under this arrangement the member currencies have a common set of weights based on regional trade shares. The members announce a central parity vis-à-vis the basket and pledge to keep it within a unilaterally chosen band. The central parity and band are allowed to crawl in response to changes in the fundamental. In response to speculative attacks countries are allowed to temporarily suspend the peg with a pledge to return as soon as possible.

linkages with the developed countries. Moreover, one of the proximate causes of the global crisis was the sharp exacerbation of the global imbalances. In this context, fostering greater trade and investment linkages within the region and diversification of the reserve currency would help Asian countries from similar crises in the future. A move towards coordinating the exchange rates of the various countries, with the objective of moving towards a single Asian currency in the future, will help to achieve both these objectives.

However, a key deterrent to a move to a single currency is the associated relinquishment of monetary and exchange rate policy, which the Asian countries have used to stabilize their economies. One way to overcome this obstacle is to adopt a parallel currency, which allows countries to control monetary and exchange rate policies, and at the same time fosters greater exchange rate coordination. An analysis of the participating countries' currencies movement against a hypothetical parallel currency reveals that there is a great deal of diversity, indicating that policymakers have different priorities.

A move towards greater monetary and exchange rate cooperation will also require the establishment of certain regional institutions that will promote economic and financial integration. Fortunately, some of these building blocks are already in place in the region. These include a multilateralized swap arrangement, regional surveillance mechanism and a bond fund investing in local currency denominated bonds. However, as pointed out above all of these institutions have some inherent drawbacks that need to be addressed before they can provide the foundation of greater regional integration. While the CMIM and ABF needs to be augmented, both in terms of funds at their disposal as well as coverage of countries, the surveillance mechanism needs to be made more effective to ensure that regionally destabilizing policies are not being pursued by individual member countries.

## References

Caballero, R. & Krishnamurthy, A. (2009) "Global imbalances and financial fragility. NBER Working paper No. 14688, Cambridge, Massachusetts

Caballero, R. Farhi, E. & Gourinchas, P. (2008) Financial crash, commodity prices, and global imbalances. *Brookings Paper on Economic Activity*, 2008(2), 1-55.

Dornbusch, R. and Park, Y. C., 1999. Flexibility or nominal anchors? In: Exchange Rate Policies in Emerging Asian Economies, edited by S. Collignon, J. Pisani-Ferry, and Y. C. Park. Routledge.

Eichengreen, B., 2006. The parallel currency approach to Asian monetary integration. *American Economic Review*, 96 (2) pp 432-436.

Eichengreen, B. and Bayoumi, T., 1999. Is Asia an optimum currency area? Can it become one? Regional, global and historical perspectives on Asian monetary relations. In: Exchange Rate Policies in Emerging Asian Countries, edited by S. Collignon, J. Pisani-Ferry, and Y.-C. Park. Routledge, London, pp. 347–366.

Eichengreen, B. 2007. European Integration: What Lessons for Asia?, Paper Prepared for the Asian Development Bank project on Asian Regionalism,

Frankel, J. A. and Rose, A. K., 1998. The endogeneity of the optimum currency area criterion. *Economic Journal*, 108, pp 1009–1025.

Girardin, E., 2004. Information exchange, surveillance systems, and regional institutions in East Asia. In: Monetary and Financial Integration in East Asia: The Way Ahead, Volume 1. Palgrave, Basingstoke, pp. 53–95.

Goto, J. and Hamada, K., 1994. Economic preconditions for Asian regional integration. In: Macroeconomic Linkage: Savings, Exchange Rates, and Capital Flows, edited by T. Ito and A. O. Krueger. University of Chicago Press, Chicago, pp. 359–385.

Goldman and Sachs 2003. Dreaming with the BRICS: The Path to 2050, Global Economics Paper No. 99

Grenville, S., 2004. Policy dialogue in East Asia: Principles for success. In: Financial Governance in East Asia; Policy Dialogue, Surveillance and Cooperation, edited by G. d. Brouwer and Y. Wang. Routledge, pp. 16–37.

IMF 2007 Evolution of Trade in Emerging Asia, Regional Economic Outlook: Asia and Pacific.

Kawai, M. and Motonishi, T., 2005. Is East Asia an optimum currency area? Paper presented at Second KIEP-PRI Seminar on Financial Interdependence and Exchange Rate Regimes in East Asia.

Kenen, P. B. and Meade, E. E., 2008. *Regional Monetary Integration*. Cambridge University Press.

Kuroda, H. and Kawai, M., 2002. Strengthening regional financial cooperation in East Asia. *Pacific Economic Papers*, No. 332 (Canberra, Australia: Australian National University).

Ma, G. & Remolona, E. 2005 Opening markets through a regional bond fund: Lessons from ABF2. *BIS Quarterly Review*, June 2005, pp 81-92.

McKinnon, R. I., 1963. Optimum currency areas. *American Economic Review*, 53 (4), 717-725.

Mundell, R., 2001. Keynote address. In: *Defining an Agenda for Poverty Reduction*, edited by C. Edmonds and S. Medina, volume I.

Mundell, R. A., 1961. A theory of optimum currency areas. *American Economic Review*, 51 (4), 509–617.

Oh, J. and Harvie, C., 2001. Exchange rate coordination in East Asia. *Journal of Korean Economy*, 2 (2), 249–296.

Rajan, R. 2008 Monetary and financial cooperation in Asia: Taking stock of recent on-goings. *International Relations of the Asia-Pacific*, 8(2), 31-45.

Sachs, J. 2003 IMF is a power unto itself. In: Driscoll, W. and Clark, J. (eds.) *Globalization and the Poor: Exploitation or Equalizer?* New York, International Debate Education Association. pp 15-139.

Stiglitz, J. 2003 *Globalization and its Discontents*. New York, WW Norton and Company Ltd.

Williamson, J., 1999. The case for a common basket peg for East Asian currencies. In: *Exchange Rate Policies in Emerging Asian Countries*, edited by S. Collignon, J. Pisani-Ferry, and Y. C. Park. Routledge, pp. 327–343.