Research Institute of Economy, Trade and Industry (RIETI)

Japan-China-Korea (A3) Conference Monetary and Financial Cooperation in the Region

Reference

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May 24, 2012

http://www.rieti.go.jp/en/

Global Needs for ACU-Denominated Reserve Assets[1]

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1. Introduction

There is no doubt that the lack of regional capital market development has forced A3 forces to rely on US markets for investing their surpluses. The resulting currency and maturity mismatch problems of capital flow are referred as the original sin, with accompanying vulnerabilities for a currency crisis.[2] Despite subsequent efforts to overcome some of the fundamental problems in Asia, visible improvements have yet to be made. Incidentally, A3 has initiated CMIM in the framework of ASEAN+3, which proved ineffective in the recent global crisis, forcing these countries to secure central bank swap arrangements with the FED.[3] In contrast, some of the internationalization moves by China has caught a lot of attention globally. These disparate pictures clearly underscore the possibility that despite the repeated rhetoric for cooperation, regional efforts may prove to be ineffective when backgrounds and interests differ greatly among countries in the region. Simply, it failed to generate enough momentum and enthusiasm among "donor" countries of CMIM to overcome the critical lack of support in a bigger framework of regional cooperation. This reality check underscores the need to start regional talks among A3 countries in a rather strategic manner so that its successful launching can be expanded further to ASEAN+3.

Instead of emphasizing the needs for regional cooperation a priori, we have to realize that A3 shares common problems and that these can only be tackled effectively with three countries moving in lock-step. If this proposition is proven to be too hasty and presumptuous, there seems less of a need to stick together to achieve a common goal. The most glaring absence in the region is the lack of a requisite capital market for efficient allocation of resources. Despite recent problems in the advanced economies, well-functioning capital markets remain the backbone of modern economic systems. The hard reality that Asian nations, notably A3, still outsource their financial system overseas supports the case for future regional cooperation. Simply, Asia cannot sustain stable growth if it continues to be buffeted by external shocks in terms of exchange rate and capital flow volatility. Since a part of the reason for this market instability lies in Asia's underdeveloped capital markets, concerted efforts by A3 to lay a foundation for future capital market development cannot be overemphasized.

In some sense, the problems that A3 has may look different: i.e., Korea is too sensitive to

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[2] Eichengreen and Hausmann (1999); Eichengreen, Hausmann and Panizza (2002)

[3] Kim and Rhee (2010); Moon and Rhee (2012); Rhee (2011)

short-term capital flow volatility because its capital account is almost completely open while China faces growing inflationary pressures and income disparity because it has limited absorptive capacity for capital flow. Japan has been suffering from a lack of financial market functioning as a result of its prolonged recession and a depleted war chest for further fiscal stimulus. However, the needs for a regional solution are all too clear: First, A3 similarities include all having export-oriented economies, which contributed to the global imbalance. Second, A3 has an even bigger problem of managing ever growing foreign reserves, which they cannot handle properly on their own. Since the pressure on China to appreciate their currency can easily spill over to its neighbors, A3 has a common problem they should tackle together for their own interests. More specifically, this paper seeks ways to manage their foreign reserves effectively, i.e. regional solution to reserve problems in Asia. It centers on a strategy to lessen the enormous pressure of dollar asset diversification by creating its own reserve asset of global acceptance. We recognize the need for cooperation in various areas, but try to put those together to tackle the most urgent problem with the longer implication for institutional building and the supply of reserve assets created in Asia.

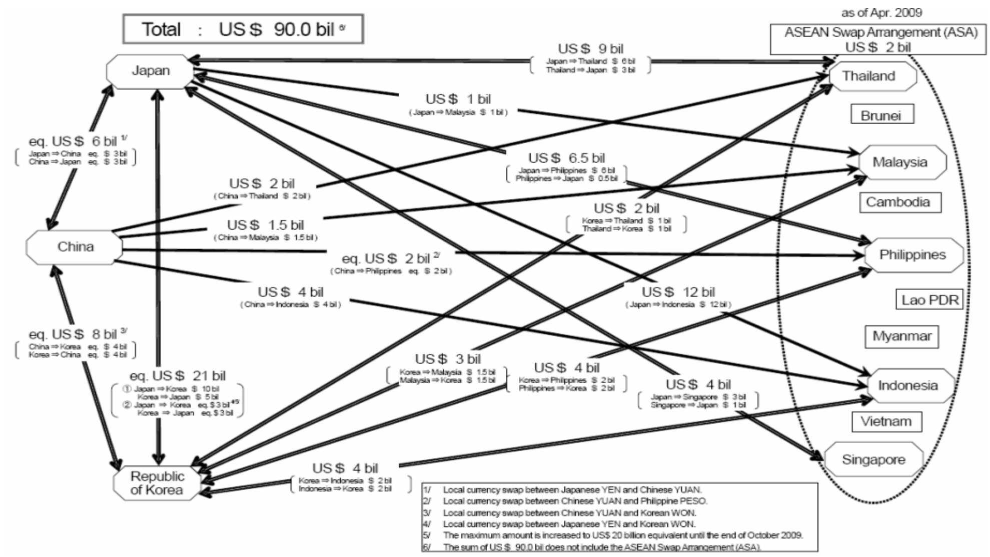
The rest of this paper is as follows: we cover the progress we made during the last decade, and seek possible responses with some evaluation of earlier efforts. This is followed by practical approaches to the problem of excess FX reserves in light of the limits of the earlier proposal. In this paper, we suggest a rather bold move toward establishing a regional institution, A3FUND, or AMF, with some confidence gained from our prior attempts. Most notably it is argued that establishing an ACU index is feasible and we can start issuing ACU-denominated reserve assets that will be highly sought after under the current volatile market conditions. The final chapter contains policy implications.

2. Previous Achievements: CMIM, ABMI

2.1. CMIM (Chiang Mai Initiative Multilateralization)

Ever since the Japanese initiative in 1997 about AMF (Asia Monetary Fund), we have cleared many obstacles to finally establish regional institutions for our own needs. Even though some of the same spirit carried over to the CMI swap arrangement in 2000, its development fell short of fulfilling its initial plan of securing financial stability via offering liquidity to deal with BOP deficits and short-term liquidity problems. However, this arrangement, even though it was expanded into a multilateral framework in CMIM, still cannot function properly as a regional institution. Its ad-hoc nature could not really serve increasingly greater needs for regional financial stability.

[Figure 1] CMI Currency Swap Arrangement



Source: Ministry of Finance, Japan

CMI multilateralization (CMIM) received a boost from the ASEAN+3 Ministerial Meetings in 2005 as it endorsed the Multilateral Swap Arrangements: MSAs and finalized the deal in 2010 with the size expanded to USD120 billion. The initial capital contribution was made mostly by A3 (80%: Korea16%, China32%, Japan 32%, ASEAN 20%). In supplementing the existing international financial arrangements, the CMIM will provide financial support through currency swap transactions among CMIM participants in times of liquidity crisis. Each CMIM participant is entitled, in accordance with the procedures and conditions set out in the Agreement, to swap its local currency with USD for an amount up to its contribution multiplied by its purchasing multiplier. Despite such progress, it is still unclear whether we achieved something substantial toward regional financial stability. Detailed discussions about the previous and current efforts are discussed in Moon and Rhee (2011). Simply, A3 could still not embark on something that would lead to enhanced capacity for financial stability in the region.

[Table 1] Financial Contribution and Borrowing Amount in CMIM

		Financial contribution		Borrowing amount	
		$ billion (A)	(%)	$ billion (B)	B/A
Korea		192	16.0	192	1
China (include Hong Kong)		384	32.0	192	0.5
Japan		384	32.0	192	0.5
A3 sub-total		960	80.0	576	--
Big 5	Indonesia	47.7	3.97	119.25	2.5
	Malaysia	47.7	3.97	119.25	2.5
	Thailand	47.7	3.97	119.25	2.5
	Singapore	47.7	3.97	119.25	2.5
	Philipinnes	36.8	3.07	92	2.5
	Sub-total	227.6	18.9	569	--
Small 5	Brunei	0.3	0.02	1.5	5
	Cambodia	1.2	0.10	6	5
	Laos	0.3	0.02	1.5	5
	Myanmar	0.6	0.05	3	5
	Vietnam	10.0	0.83	50	5
	Sub-total	12.4	1.0	62	--
ASEAN sub-total		240	20.0	631	--
Total		1,200	100	1,207	--

Source: Ministry of Strategy and Finance (Korea)

There is no question that substantial progress was made, but there still a lot more to be done. By formally initiating a move to develop a regional institution, Asia, if not A3, can contribute toward global financial stability by securing basic ingredients for normalized capital flow: regional capital market with its own instrument. The proposed regional institution would be responsible for managing FX reserves and supplying reserve assets denominated in its own index. This will help stabilize the global capital flow and ease the imbalance between growing needs for safer assets and the shrinking supply of qualified reserve assets. The successful launch of the CMIM in an expanded version, together with an independent regional surveillance unit, would be a clear manifestation of solid commitments and concerted efforts of A3 to further enhance the regional capacity. However, we still do not have a regional institution with its own regional currency unit, a pivotal point of all related discussions. In short, despite substantial progress in various forms of cooperative network, financial dependency on external dollar systems remains almost unchanged.

As history has repeatedly shown, despite some improvement, this regional swap arrangement is not a full-fledged regional financial institution, and often fails to perform in times of need. More importantly, the current setup reflects the reality that regional cooperation cannot be made without strong incentives, and the consultation IV type of surveillance by mandated regional governance. Unless the current leadership can somehow overcome the existing stalemate, and establish a fully autonomous institution, we cannot expect de-facto insurance against future crises. Such low expectations about the prospects for our ability to establish regional institutions actually increased our dependency on the FED and weaken the incentive to cooperate among ourselves. Given the sharp limit on borrowings, as it is tied with the capital contribution, and that autonomous lending decision is only allowed up to 20% of any potential lending with a strong set of IMF conditionality, we see that CMIM in its current form is an ad-hoc and incomplete arrangement at best. Above all, it is set up as an emergency lending facility, which is hardly necessary when biggest donor countries have excessive level of FX reserves.

2.2. Asian Bond Market Initiative, ABF

One of the strong alternatives to amassing enormous amounts of foreign reserves is to secure a facility to issue bonds for financing purposes. The only viable option for Asian needs to recycle surpluses has been Treasuries. This basically dictates the basic capital flow uphill and subsequently intermediated through European banks to reach back to surplus countries. Essentially, we are using an advanced economy’s capital market to secure credit according to our needs even though we are the provider of those credits in the first place.

Higher returns of advanced economies including the Seigniorage are contrasted with low yields on Treasuries, which is rather ironic from an emerging market perspective. The yield gap is in effect a direct stabilization cost, or roughly an excessive risk insurance premium. If we continue along this line, the value of the USD will continue to decline and the low interest environment will put additional pressure on emerging market's liquidity burden. Simply, this is not sustainable. Fundamentally, this situation needs to be resolved because the real owner of the capital is being subjugated under the influence of advanced economies in the form of recurrent financial crises. It is critically important for Asian countries to develop its own capital markets such that surplus capital can be put to better use in the region instead of incurring the roundtrip to advanced economies before being recycled back to its origin. The most persuasive proposal has been the development of a bond market such that this money can be tapped for regional use instead of buying Treasuries.

This interpretation should not be seen as a political gesture. It is purely a reasoning based on observations that the current setup makes capital flow uphill unavoidable and we pay for stabilization costs disproportionately in relation with its favorable effect. It is time to share the network externality singularly enjoyed by the USD so that globally it is more stable and sustainable to have additional Asian reserve asset of ACU denomination.

However, this forceful drive has not been particularly successful because it failed to secure private market needs. In fact, ABMI drive suits better with the sovereign bond issuance that can be accepted as reserve assets in global central banks. Local bond market development without an explicit link with the growing needs for reserve assets could not secure necessary market needs to support it.

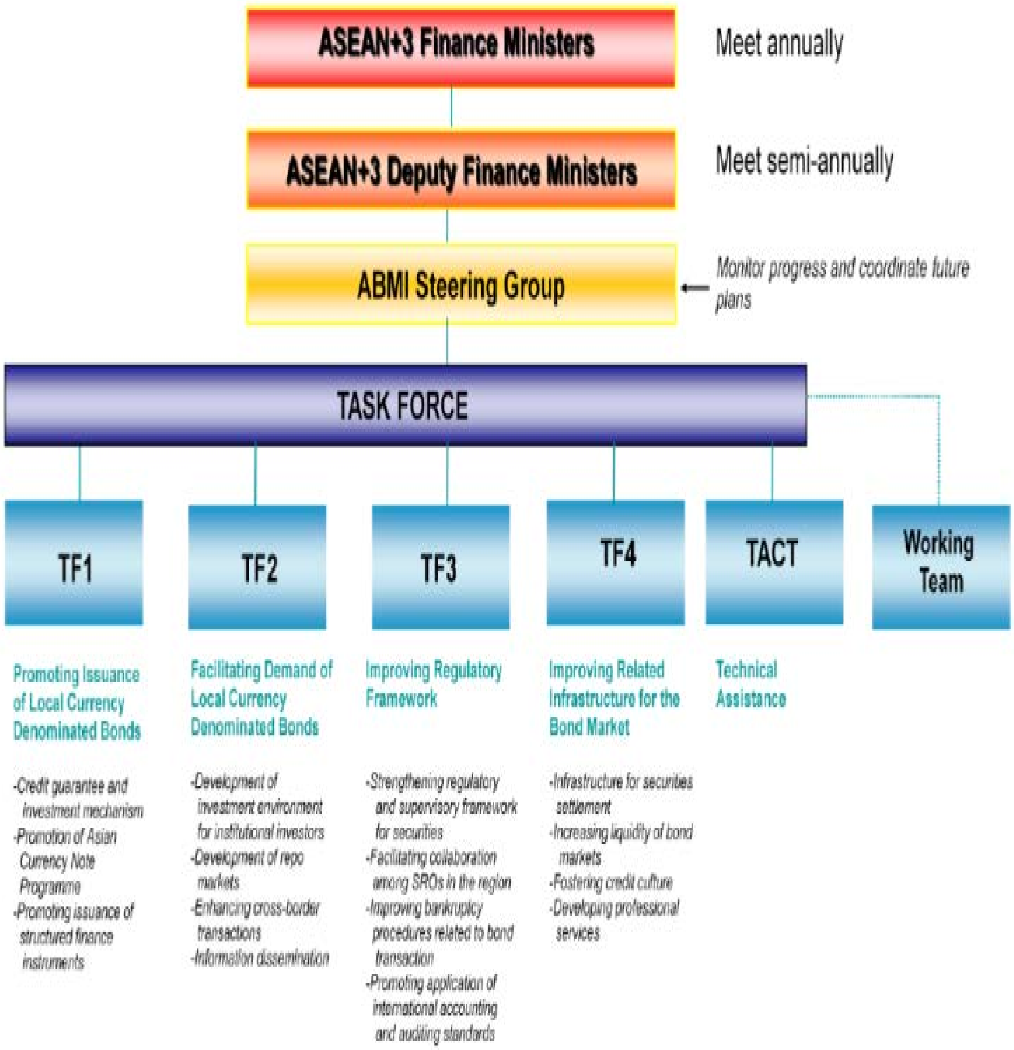
[Table 2] Major Progress of ABMI

	Main issues
2002	- November: Korea proposed the ABMI in the ASEAN+3 Finance vice-Ministers Meeting
2003	- August: Agreement on the Asian Bond Markets Initiative (ABMI)
2004	- June: Provision of credit guarantees by the Japan Bank for International Cooperation (JBIC) for bonds issued by an Asian multinational company in Thailand - December: Issuance of ringgit-denominated bonds by the ADB and the International Finance Corporation (IFC) in Malaysia
2005	- May: Introduction of the ABMI Roadmap - Commencement of study of ―Asian Bond Standards, to explore development of international bond markets in Asia
2006	- December: Issuance of cross-country primary collateralized bond obligations (CBOs) (named ―Pan-Asia Bonds‖) by Korea and Japan
2007	- May: Agreement on diversification of issuers and types of local currency-denominated bonds, and endorsed studies in the following new areas: (i) exploring new debt instruments for infrastructure; (ii) promotion of securitization of loan credits and receivables; (iii) promotion of an Asian MTN program

2008	- May: Endorsement of a New ABMI Roadmap - A Steering Group has been established to monitor and coordinate the activities of the four task force teams in charge of these areas
2009	- May: Agreement on establishment of the Credit Guarantee and Investment Mechanism (CGIM) with initial capital of USD500 million - November: Expanded to USD700 million capital, The name is changed to GCIF, agreements on main articles of association
2010	- September: Establishment of the Asian Bond Market Forum
2011	- Asian bond market development plan expanded into Asia capital market development plan

Source: Jang (2011), Ministry of Strategy and Finance (Korea)

[Figure 2] Operation Map of ABMI



Source: ASEAN + 3 (http://www.asianbondsonline.adb.org)

After some preparation, the roadmap to develop ABMI was adopted in 2008 by the finance ministers in Asia. The results of the working-level meetings include credit guarantee investment vehicle, which was established as CGIF (Credit Guarantee Investment Facility) in 2009. ABMI later set up the Asia Bond Market Forum: ABMF, which undertook in-depth analysis of regional bond markets and cross-border bond issues and investment.

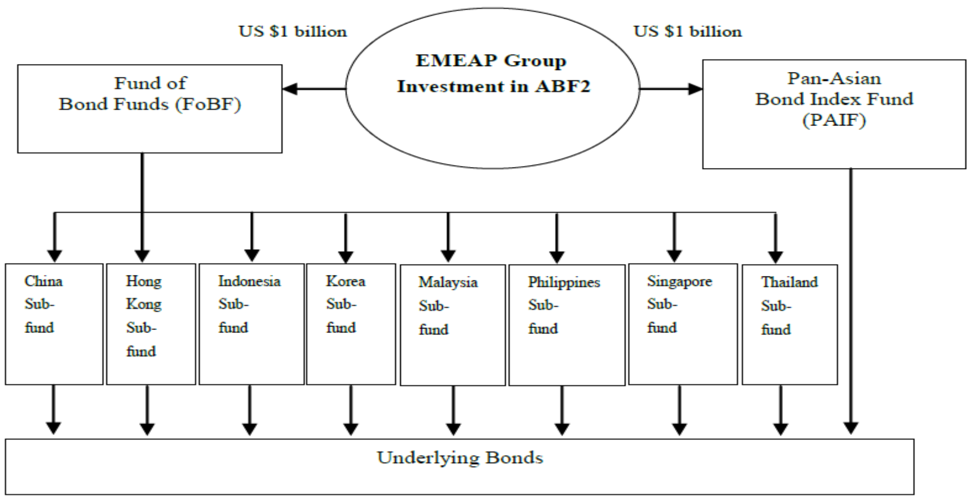
[Table 3] ABMI Taskforce

	Task	Issues
Task Force I	Promoting the Issuance of Local Currency-Denominated Bonds (Presidency: China, Thailand)	- Laos issues Thai baht bond - Credit guarantee and investment mechanism - Infrastructure bond
Task Force II	Facilitating the demand for Local Currency-Denominated Bonds (Presidency: Japan, Singapore)	- Development of an investment environment for institutional investors - Promotion for institutional investors - Conference for activation of regional bond markets
Task Force III	Improving the Regulatory Framework (Presidency: Japan, Malaysia)	- Strengthening cooperation between regional regulations and supervisory authorities - Strengthening capacity between regional regulations and supervisory authorities - Progress on Asian Bond Standards research - Seminars for Advancement of regional regulatory frameworks - Discuss the systematic maintenance for standardization of Regional bond market regulation
Task Force IV	Improving the Related Infrastructure for the Bond Markets (Presidency: Korea, Philippines)	- Research on ways to increase the bond liquidity - Construction of Securities settlement infrastructure - Study of expert group for RSI (regional settlement intermediary)

Source: Ministry of Strategy and Finance (Korea)

While ASEAN+3 initiated the discussion on ABMI, a separate try by the EMEAP (Executives' Meeting of East Asia-Pacific Central Banks) was an attempt to establish an Asian Bond Fund (ABF). In June 2003, EMEAP announced the launching of ABFI, which consists of 11 nations including Japan, Australia, and New Zealand.

[Figure 3] Structure of ABF2



Source: EMEAP.

In subsequent developments, ABF1 has a serious limitation as it could only invest in bonds denominated in vehicle currency denominated bonds, failing to resolve currency mismatch problems. And ABF2, which consist of Pan-Asian Bond Index Fund (PAIF) and Fund of Band Funds (FoBF) amounts to USD2 billion allowing member countries to invest in regional currency denominated bonds. PAIF invests in 8 EMEAP member countries' bonds denominated in a regional currency according to a specialized institution's bond index, while FoBF is a bond fund by an individual country.

Both ABMI and ABF have laid some ground for a joint management of FX reserves, but failed to secure a critical mass for a successful launch and ensuing success. There have been few ABMI-denominated bonds so far and there has been little institutional-building for issuing bonds of regional, if not global acceptance. Among others, a lack of financial infrastructure, and lack of market driven growth that characterizes government-initiated resulted in lukewarm participation by private market participants. More fundamentally, Asia still does not have a fully convertible currency with the exception of the Japanese Yen, which still cannot be a full-fledged vehicle currency due to its chronic economic problems. The focal needs of ABMI, ABF have not been correctly identified and put on the table with no responsible central body overseeing its development.

3. Future Agenda for a Joint FX Management

3.1. Regional Currency Unit: ACU

The most promising area for further development in the context of managing reserves jointly is to make better use of a regional currency proposal. The discussion started in Japan, where the pivotal 'Kobe Project' from 2000 made some progress to circulate the idea so that ACU exchange rate was announced in November 2005. An ASEAN+3 research group began a full-scale study on the composition of a regional currency unit, surveillance mechanism, and possible applications of RCU. Despite these efforts, not much progress has been made because the issue is still relegated to the back burner, with nobody taking responsibility for its development. In fact, today's discussion still reflects the reality that sovereign interests are given priority in a globalized world, especially in Asia where the dollar dependency remains predominant.

From an A3 perspective, the current model of regional cooperation based on ASEAN+3 fundamentally lacks an incentive mechanism: It is driven mainly by the authorities, whose interests cannot be secured within A3 framework without a full mandate from their populace. Also, A3 is less likely to remain as a recipient of regional benefits. There are striking differences among ASEAN members and it is difficult to discuss issues of common concern. In practice, we may end up creating an entity where we do not fulfill any role to our mutual benefit. Therefore, this is the basic rationale for pursuing this agenda with A3, whose feasibility is much better and focused than that of a bigger perimeter.

These issues will likely be pursued over the interim because Asia is the only region without the benefits of monetary integration of any form, if not its close link with the dollar. If we fail to secure a common platform in the region to build on financial assets, fundamental problems would persist and the global financial stability cannot be achieved. The ACU and its denominated assets would serve as starting point to build a regional financial system that can contribute to a more balanced capital flow globally.

3.2. Establishment of AMF: A3 Fund

The recent central bank swap arrangements clearly indicate that we need a solid institution for it to be useful during a crisis. CMIM needs to be developed without further delay to a fully functioning AMF, with the right governance and organizational efficiency.

The most important milestone at this juncture is that our regional efforts, especially A3 initiative, are about more than just rhetoric. For regional financial stability, and financial development in the region, the successful launching of regional efforts is critical. The most important reason is that most Asian countries have adopted similar models of development, export-driven growth, thus most policy efforts are directed to achieve this goal, putting aside other economic objectives for more balanced growth. We do not know whether another alternative paradigm would have produced a different outcome. However, our successful growth paradigm so far has outlived its usefulness and we need to make concerted efforts to seek some balance toward domestic growth potential. Since our models are similar, we have a serious potential problem for systemic risk of mimic each other to pose threats of greater magnitude. This is why our joint efforts and discussions are a vital element of policy making going forward. The alternative would result in an unfavorable outcome despite appealing to short-term needs and tangible outcomes.

This call for joint effort to develop a capital market in the region should not go unattended. So far, discussions range from AMF, ABMI, CMIM, and ACU, and have extended to improving regulatory cooperation and exchange rate regime. Since the points of our discussion revolve around FX reserve management, the importance of agreeing on a common unit of account can hardly be ignored.

[Table 4] Sequences for Monetary Cooperation

Step	Stage Ⅰ	Stage Ⅱ	Stage Ⅲ
Target	Policy cooperation and infrastructure-building	Activation of A3CU and Introduction of a flexible exchange rate regime	Introduction of a single regional currency and financial integration

Policy Issues	- A3 Fund: Introduction of emergency liquidity facility - Institutionalization of Policy Dialogue - Introduction of information-sharing system - Introduction of A3CU - A3CU based Bond Issuance and Infrastructure-building	- Introduction of "Asian Exchange Rate Mechanism" - Introduction of granting credit system for intervention, using private A3CU	- Introduction of a regional central bank - National Currency Switch to Common Currency - Introduction of Macroeconomic Adjustment and Cooperation System

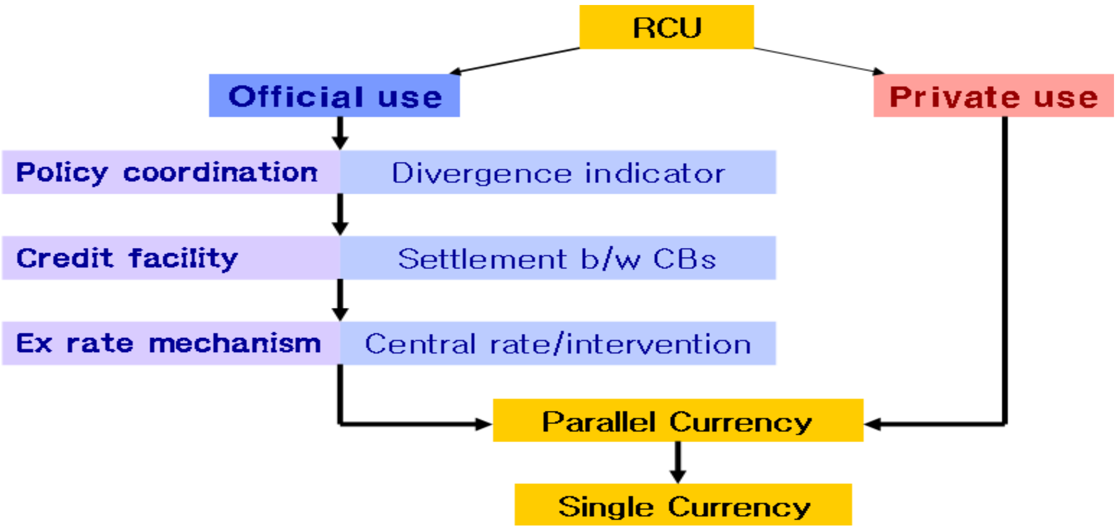
To put these agendas into concrete action, gradual step by step approach remains our norm for future efforts surrounding the proposed AMF. Their primary mission is to make better use of the regional financial resources by issuing ACU-denominated bond as reserve assets to be held globally. Some of the prerequisites for creating an environment suitable for regional capital market are AMF introducing ACU for our future bond issuance. Asking international investors for long-term confidence in sovereign bonds can be justified in times of crisis, but our common features of fragmented market base calls for joint efforts to issue bonds, i.e. ACU bond.

Since we have not made any progress in terms of financial integration based on a common currency, and in light of the recent European turmoil, it is important to introduce an ACU based on China, Korea, and Japan. This attempt would largely sidestep problems that are expected when we pursue full monetary integration like the Euro. This ACU would serve as a parallel currency mainly used for international transactions and for reserves. Given that A3 has features that are compatible in seeking a regional unit, an A3 currency denominated covered bond or CDO can be marketable. The AMF-supported ACU bond would be a useful regional instrument to finance mega projects in the region, too.

3.3. Activation of ACU and AERM

In this paper, we mainly confined our attention to the development of ACU and AERM(Choi and Yoon 2007). These issues have been discussed repeatedly without any concrete results. For conditions to become favorable to Asia, however, as it seeks some stability in the wake of the global financial crisis is to fully recognize that a financial system cannot be outsourced and that we need to work together to develop financial markets in the region. From a numeraire to a settlement arrangement, a currency requires some extra effort by sovereign banks in the form of AERM. ACU can serve as an anchor for AERM and when the deviation of component currencies becomes large, each country can intervene to stabilize it. As for the EU, 20% of central banks' gold and USD reserves were deposited at the EMCF, and ECU was issued. ACU can be issued with similar deposits by A3 central banks. Ultimately, there needs to be market demand for ACU bonds. With strong institutional support, ACU bonds can have sound demand, solidifying its position as a reserve asset. Of course, heroic efforts are required for this to happen. But this needs to be done and can be done. The purpose of a parallel currency is for it to be used for both national currency and common currency with full recognition, with an implicit understanding that ACU is basically for reserve needs and also possibly for international transactions.

[Figure 4] Applications of ACU



Source: Moon and Rhee (2006)

Moon et al. (2006) suggested divergence indicator, which would allow each nation to engage in efforts to remain within the proposed bound of 15%. It may not be so important to manage AERM right now. We can deal with this issue later with various discussions on benchmark, realignment frequencies, etc. AMF can engage in efforts to stabilize AERM. In fact, we can think of an A3 bond to finance regional activities that could not have been feasible within national boundaries, allowing for increased supply of public goods for the regional market.

We are not so ambitious at this juncture, and would like to make a few suggestions that would be implementable without the risk of a serious backlash. AMF is certainly the right choice for Asia since it can use its reserves to speed up financial market development in the region, contributing to a normalized capital flow distorting efficient allocations. The practical tool for normalizing capital flow uphill to capital flow downhill, we need to use ACU bonds as a legitimate reserve asset for central banks worldwide. Other practical problems that make it difficult for it to happen can be eliminated in the short-run once the imperatives for regional and global financial stability become real. Asia, with the leadership of A3, has to start its own efforts to secure a basis for longer-term financial stability.

4. Conclusion

Above all, A3 cooperation needs to be more realistic and beneficial. The current system is not regarded as mutually beneficial as recipient and donor countries are clearly separated. Cooperation is only possible when proven to be mutually beneficial according to the principle of reciprocity. Currently, the most important and feasible area of cooperation is a joint management of FX reserves. It is certainly possible to set up AMF and use the common pool to address the deficiencies that constantly plague our regional financial stability. Specifically, we can rely on AMF to start issuing ACU bonds of various categories so that we can diversify our portfolio instead of reluctantly putting all our resources into Treasuries. This would basically normalize the capital flow uphill problem and would ensure favorable conditions for regional market developments. Unless we move without further delay, we may never have a chance to follow up on our initial achievements of CMIM and ABMI, which remain incomplete, yet promising going forward. This change-up process of setting up a regional institution and start issuing regional bonds would prove to be the ultimate touchstone for the future of Asia in seeking more balanced growth. Instead of accumulating Triffin-dilemma ridden dollar assets, we can achieve a more balanced, and diversified capital flow that can be put to use to strengthen the regional base and reducing the inherent vulnerabilities, and help restore some balance in an over-extended dollar network.

Without being fixated on previous plans that interest few voluntary market participants, we have to make sure that our future talks are not confined to the ministerial level. In fact, it can be argued that regional cooperation has largely been rhetoric, regarded as the pet project of MOF officials. Given the very strong tradition of bureaucrats remaining core elements in the current financial landscape in Asia, there has been a lack of enthusiasm and optimism by private market participants. Since private participants remain the key driver in any market development, official agreements would serve little unless the needs and incentives of private participants are secured. Officials can help promote conditions and specifically they can set up an AMF. Also, they can agree on developing and utilizing ACU in the form of index for common bond issues. Similarly, ACU can also serve as an anchor for regional exchange rate movement since relative weights reflect conditions about economic fundamentals for each country.

In the short run, the most concrete needs can be found in FX reserve management. There are ample reasons for common use and the best choice is to set up a fund for responding to the urgency of the regional agenda, e.g. Mega project, or GCF (Green Climate Fund). Central bank swap arrangements can certainly replace some of the needs to manage FX reserves on an individual country basis. Whether or not ACU can serve as an anchor for AERM remains to be seen. However, this direction is the right one in view of the recent turmoil in Europe and the obvious anomaly in capital flowing uphill to the US. Addressing the global needs for a new reserve asset would be one of most effective ways to manage FX reserves in the region.

Reference

Asia Development Bank, “Asia 2050: Realizing the Asian Century,” ADB, 2011.

Asia Development Bank, Asia Regional Integration Center Database, http://aric.adb.org/.

Choi, Gongpil, "How to Salvage the Current International Financial System" Korea Institute of Finance, 2011.

Choi, Gongpil, "The Current Global Debacle: What Caused It and What Can Be Done About It", Korea Institute of Finance, 2011.

Choi, Gongpil and DeokryongYoon, 2007, Toward an East Asian Exchange Rate Regime, Duck-Koo Chung, Barry Eichengreen, editors, Brookings Institution Press.

Chung, Duck-Koo and Masahiro Kawai, The Global Financial Crisis, Future of the Dollar and the Choice for Asia, Near Press, 2011.

Eichengreen, Barry, “International Monetary Arrangements: Is there a Monetary Union in Asia's Future?” *The Brookings Review*, Vol. 15, No. 2, 1997, pp.33~35.

Eichengreen, B. and T. Bayoumi, “Is Asia an Optimum Currency Area? Can It Become One? Regional, Global and Historical Perspectives on Asian Monetary Relations,” homepage of Eichengreen, U.C. Berkeley, 1996. http://www.econ.berkeley.edu/~eichengr/.

Eichengreen, B. and R. Hausmann, “Exchange Rates and Financial Fragility,” *NBER Working Paper* 7418, 1999.

Eichengreen, B., Ricardo Hausmann and Ugo Panizza, “Original sin: the pain, the mystery, and the road to redemption,” *paper presented at the conference on Currency and Maturity Matchmaking: Redeeming Debt from Original Sin*, Inter-American Development Bank, November, Washington, D.C. 2002.

Hettne, Bjőrn, “Beyond the New Regionalism,” *New Political Economy*, 2006.

Jang, Hong-Bum, “Financial Integration and Cooperation in East Asia: Assessment of Recent Developments and Their Implications,” *IMES Discussion Paper Series*, No. 2011-E-5, Bank of Japan, 2011.

Kawai, M., "Exchange Rate Arrangements in East Asia: Lessons from 1997-1998 Currency Crisis," Bank of Japan, *Monetary and Economic Studies*, December, 2002.

Kim, Caewon, *EU Economics: The Theory and Practice of European Economic Integration*, Bakyoungsa, 2004.

Kim, In June and Yeongseop Rhee, "Global financial crisis and East Asian monetary cooperation revisited,” in *Toyo Keizai*, *Frontiers of Modern Economics*, 2010.

Kim, In June and Yeongseop Rhee, *International Finance* (2nd edition), Yulgok, 2008.

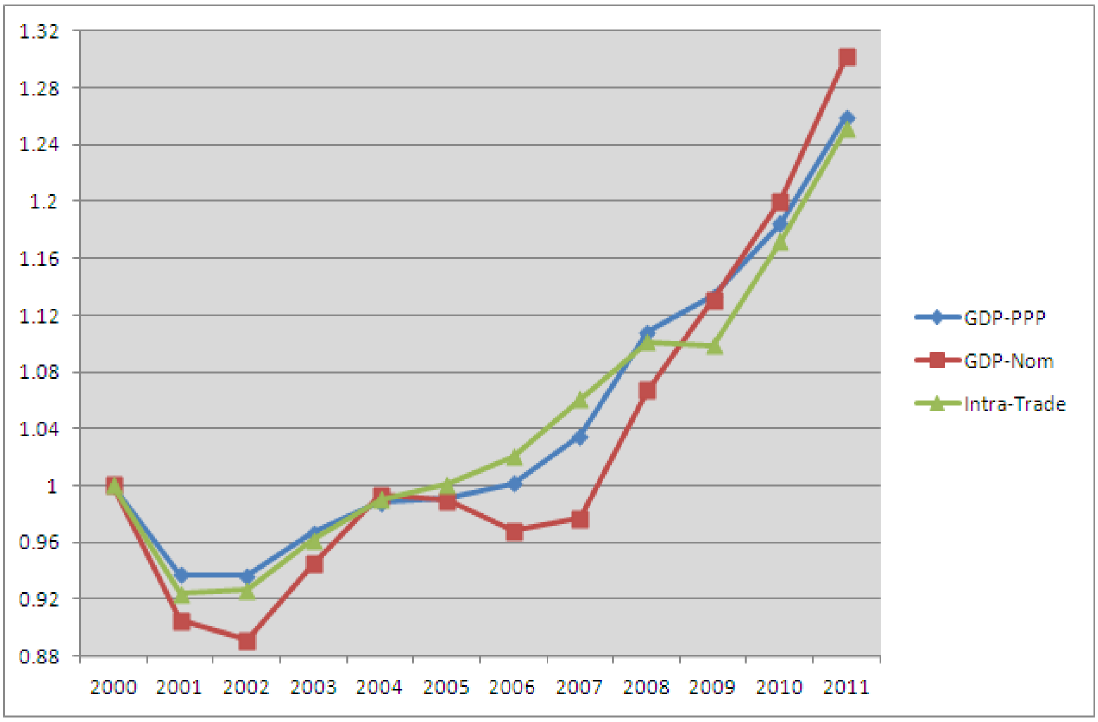
Mattli, Walter, *The Logic of Regional Integration*, Cambridge University Press, 1999.

Ministry of Strategy and Finance (Korea), A3 Triangle Initiative on Monetary and Financial

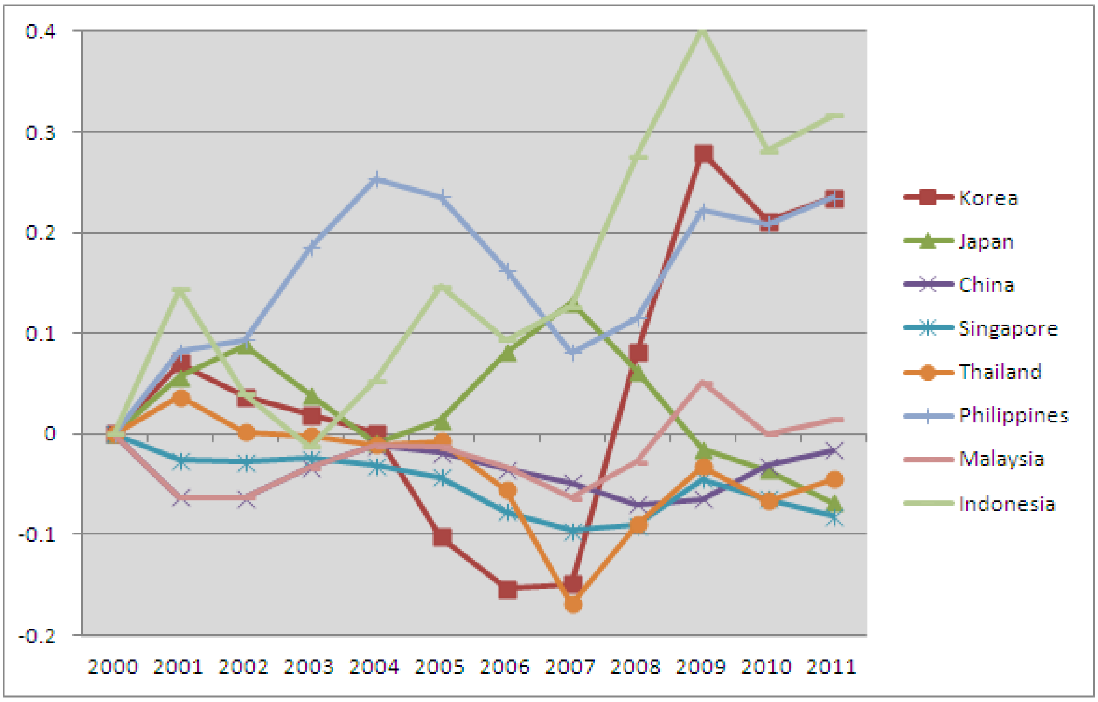
Cooperation for Korea, China and Japan, 2011.
Ministry of Strategy and Finance (Korea) Homepage ; http://www.mosf.go.kr
Ministry of Strategy and Finance (Korea) and NEAR, “Conference for monetary cooperation in East Asia”, 2011.
Moon, Woosik, Jonghwa Lee, Yeongseop Rhee, and Deokryong Yoon, “Conditions and the Potential for monetary integration in East Asia”, KIEP, 2005.
Moon, Woosik and Yeongseop Rhee, “Seignorage and Monetary Sovereignty in Monetary Union: Comparing Europe and East Asia”, *Journal of International and Area Studies*, 2003.
Moon, Woosik and Yeongseop Rhee, *Asian Monetary Integration: Coping with a New International Monetary Order after the Global Financial Crisis*, Edward-Elgar, 2012.
Moon, Woosik, Yeongseop Rhee, and Deokryong Yoon, “Regional Currency Unit in Asia: Property and Perspective,” *KIEP Working Paper* 06-03, 2006.
Park, Jeongpil, “ABF's operating status and future challenges of EAEAP”, *Forex International Finance Review*, Bank of Korea, 2005.
Park, Young-Joon., Dong-Eun Rhee, Yonghyup Oh, and Jiyoun An, “East Asia’s Financial Cooperation under Post-Crisis International Financial Architecture”, *KIEP Working paper* 10-08, 2010.
Rhee, Yeongseop, “East Asian Monetary Integration: Destined to Fail?” *Social Science Japan Journal*, 2004.
Rhee, Yeongseop, “East Asian Integration Strategy: Money and Finance”, in Hong-Taek Chun and Myungho Park (eds.), *East Asian Integration Strategy: With Focus on Cooperation among Korea, China and Japan*, KDI, 2011.
Sohn, Byeong-hae, *Economic integration theory*, Bobmunsa, 2002.
Williamson, J., "The Case for a Common Basket Peg for East Asian Currencies," presented at the conference on *Exchange Rate Policies in Emerging Asian Countries: Domestic and International Aspects*, Korea Institute of Finance, November 15-16, 1996.

<Appendix> ACU Exchange Rate Simulation

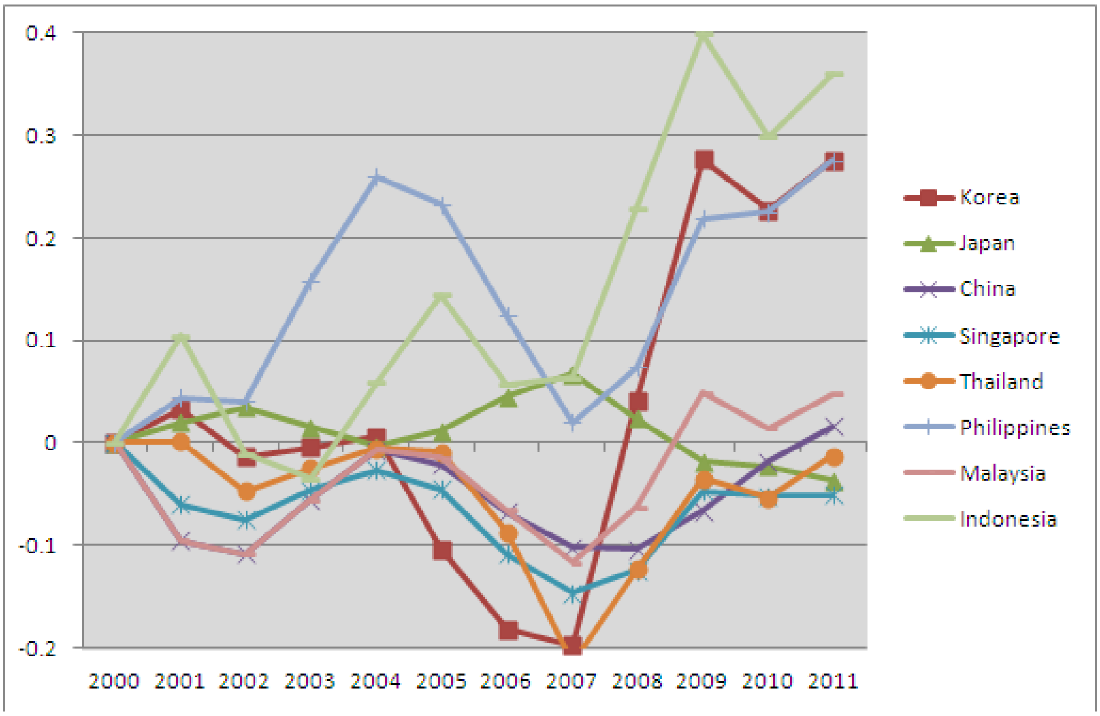
[Figure A-1] USD/ACU Exchange Rate Changes



[Figure A-2] Exchange Rate Changes against ACU: weighted by GDP-PPP



[Figure A-3] Exchange Rate Changes against ACU: weighted by GDP-Nominal



[Figure A-4] Exchange Rate Changes against ACU: weighted by Intra-Trade