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MECHANISMS FOR MULTILATERAL
AND REGIONAL GOVERNANCE**

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Abstract

The Asian Financial Crisis of 1997–1998 revealed that Asia should have its own regional mechanism to mitigate systemic risk and crisis contagion. This resulted in the formation of several regional organizations, such as the Association of Southeast Asian Nations, the People's Republic of China, Japan, and the Republic of Korea (ASEAN+3) Macroeconomic Research Office (AMRO) whose work supports regional macroprudential schemes and which provides macroprudential surveillance and assistance in financial crisis resolution. Given its small size and lack of authority to enforce its policy recommendations, AMRO is not in a position to replace the dominance of international organizations with more ample resources in resolving financial crises. AMRO can be more effective in early warning than in crisis resolution. Its work should be supported and expanded, while increasing coordination with other international organizations to strengthen the macroprudential ability of the Asian region. The Southeast Asian Central Banks Research and Training Centre (SEACEN) provides training to central bankers, research on central banking, and fosters networking among members. Its work contributes indirectly to macroprudential schemes through upgrading the capabilities and relationships of members' central banking staff. SEACEN can become more effective if it streamlines its work focus and collaborates more with other organizations. The Executives' Meeting of East Asia-Pacific Central Banks (EMEAP) organizes meetings for governors and deputy governors of its members' central banks in order to dialogue and exchange ideas. These meetings have indirect and long-term benefits as they help to enhance regional macroprudential schemes by fostering relationships and interactions among the top decision makers. EMEAP may become more effective and prominent if it makes its work and plans more transparent. In addition, several other high-level meetings such as ASEAN+3 Finance Ministers and Central Bank Governors' Meeting, Asia-Pacific Economic Cooperation and Asia–Europe Meeting provide opportunities for policy dialogues for their members, which indirectly enhance their macroprudential efforts. But, due to the nature of the work objectives, and/or relatively small sizes of these regional organizations, they should be viewed as useful supplements to existing international organizations rather than their replacements.

Keywords: Macroprudential scheme, Economic and Financial Surveillance, Financial crisis, Regional cooperation, Asia, SE Asia

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1. INTRODUCTION

The Asian Financial Crisis of 1997–1998 revealed that Asia needs to have its own regional mechanism to mitigate systemic risk and crisis contagion. After the crisis, a series of bilateral currency swap agreements, named the Chiang Mai Initiative, was set up in 2000 by the ten member countries of the Association of Southeast Asian Nations and the People's Republic of China (PRC), Japan, and the Republic of Korea (ASEAN+3). The idea was to establish a foreign exchange reserves pool that central banks of member countries could access in the event of a liquidity or balance of payment crisis. This pool of foreign exchange reserves would provide a backup to supplement the national resources and potential borrowing from international organizations such as the International Monetary Fund (IMF). The idea for, and size of, the reserves pool expanded and, in 2009, the collaboration became the Chiang Mai Initiative Multilateralization (CMIM). Currently, its swap arrangement totals \$240 billion.¹

In 2009, in the process of making the Chiang Mail Initiative a multilateral effort, the members conceived the idea of setting up an independent surveillance unit to monitor regional economic situations and issue early warnings. The decision led to the creation of the ASEAN+3 Macroeconomic Research Office (AMRO), which opened its door in Singapore in 2011 and became an international organization in February, 2016.

2. ASSOCIATION OF SOUTHEAST ASIAN NATIONS, THE PEOPLE'S REPUBLIC OF CHINA, JAPAN, AND THE REPUBLIC OF KOREA MACROECONOMIC RESEARCH OFFICE

2.1 Mandates of the Association of Southeast Asian Nations, the People's Republic of China, Japan, and the Republic of Korea Macroeconomic Research Office

The mandate of AMRO is set out on its website:²

AMRO's purpose is to contribute to securing the economic and financial stability of the region through conducting regional economic surveillance and supporting the implementation of the CMIM. To fulfill its purpose, AMRO's functions are to:

- (i) monitor, assess, and report to members on their macroeconomic status and financial soundness;
- (ii) identify macroeconomic and financial risks and vulnerabilities in the region for members and assist them, if requested, in the timely formulation of policy recommendations to mitigate such risks;
- (iii) support members in the implementation of the regional financial arrangement; and
- (iv) conduct other activities necessary for achieving the purpose of AMRO as may be determined by the Executive Committee.

¹ ASEAN+3 Macroeconomic Research Office (AMRO). www.amro-asia.org

² Ibid.

2.2 The Organization of the Association of Southeast Asian Nations, the People's Republic of China, Japan, and the Republic of Korea Macroeconomic Research Office

AMRO's strategy and policy for managing operations is set by its Executive Committee (Appendix 1). The Committee Members are deputy or vice ministers of finance and deputy central bank governors from the member countries. The Executive Committee also has the responsibility of appointing the Advisory Panel and the Director.³

The Advisory Panel comprises up to six professionals who form an independent body, reporting directly to the Executive Committee. The Advisory Panel is responsible for providing the Director with inputs and recommendations—either strategic or technical—for AMRO's work on macro assessments. Members of the Advisory Panel, three from ASEAN countries and one each from the ASEAN+3 countries, are respected economists who hold the appointment for a period of 2 years.

The AMRO Director is responsible for staff and operations. He or she reports directly to the Executive Committee. The term for the Director's appointment is 3 years.⁴ Reporting to the Director is a team of economists who keep track of the macroeconomic and financial conditions of the ASEAN+3 countries, with the objective of giving timely recommendations to ensure macrostability and soundness.

2.3 The Operations of the Association of Southeast Asian Nations, the People's Republic of China, Japan, and the Republic of Korea Macroeconomic Research Office

The nature of AMRO's work can be categorized into two main types: crisis prevention and crisis resolution assistance.

2.3.1 Crisis Prevention

Towards this end, AMRO produces three kinds of reports. The first are overall macroeconomic assessments of individual countries for every member. The second kind of report is ASEAN+3 Regional Monitoring (AREM), which is multilateral surveillance of the global economic and financial developments that may impact the members.⁵ In between the Executive Committee meetings, it also produces monthly AREM, which may be discussed with the Advisory Panel. The third kind of reports are periodic thematic studies on issues relating to macroprudential measures such as banking supervision.⁶

Based on the agreements to establish AMRO,⁷ the members of ASEAN+3 agree to provide the information that AMRO requires to carry out its duties. Along with consultation visits with members to investigate relevant issues, AMRO will prepare its

³ Ibid.

⁴ AMRO. 2016. Appointment of Chief Economist. Press Release. 4 April.

⁵ R. Siregar, and A. Chabchitrchaidol. 2014. Enhancing the Effectiveness of CMIM and AMRO. In M. Kawai, P. J. Morgan, and P. B. Rana (eds). *New Global Economic Architecture*. Asian Development Bank Institute (ADBI). 2014.

⁶ ASEAN+3 Macroeconomic Research Office (AMRO). www.amro-asia.org/publications

⁷ AMRO. Agreement Establishing ASEAN+3 Macroeconomic Research Office. AMRO.<http://www.amro-asia.org/amro-agreement/>

reports independently. It will communicate the findings and recommendations to the member in an informal and confidential manner.

Analyses done by AMRO provide a basis for member countries to qualify for the crisis-prevention facility of the CMIM, according to the five qualification criteria of (i) external position and market access, (ii) fiscal policy, (iii) monetary policy, (iv) financial sector soundness and supervision, and (v) data adequacy.⁸

The country reports and AREM are presented to the Executive Committee meetings, held semi-annually.

2.3.2 Crisis Resolution Assistance

If, and when, a member experiences difficulties with its liquidity and/or balance of payment, AMRO will assist it to utilize the swap line of CMIM, according to the conditions set forth.

When a country member requests the use of the swap line, AMRO provides an assessment of its economic and financial conditions to the Executive Committee to aid the committee's decision. If swap line usage is granted, AMRO assists the country member to disburse the funds, monitor the usage, and comply with the terms of the CMIM Agreement.⁹ Thus far, CMIM does not have an official secretariat body that coordinates the disbursement of the swap line, and AMRO is not legally appointed to be its secretariat. But, by default, the crisis-resolution assistance tasked to AMRO gives it at least part of the role of a secretariat body.

AMRO is also tasked to "provide the macroeconomic policy recommendations that are needed for the CMIM to operate successfully."¹⁰

2.3.3 Resources and Their Utilization

AMRO's annual budget for operations is provided by its member countries, with the PRC and Japan the largest contributors.

Currently, the analytical team of AMRO consists of about 25 economists and area experts who monitor member countries' economic and financial development, along with the regional and global conditions to produce the outputs already specified.

In addition to the analytical staff, there are staff for other aspects of the operation, such as human resources, legal aspects, and coordination with CMIM.¹¹

2.4 Strengths of the Association of Southeast Asian Nations, the People's Republic of China, Japan, and the Republic of Korea Macroeconomic Research Office in Providing Macroprudential Surveillance

- (i) The agreement establishing AMRO ensures its independent operation. Its property and assets are exempt from search, confiscation, and restriction. In addition, its work is exempt from censorship and its archived records are

⁸ AMRO. The Relationship Between AMRO and CMIM. <http://www.amro-asia.org/about-amro/>

⁹ J. West. 2014. Asian Economic Surveillance and AMRO. Asian Century Institute. 26 March.

¹⁰ C. Junhong. 2016. Keynote Speech at the 6th Asia Research Forum CMIM-Asia Multilateralism and Cooperation. 1 July.

¹¹ AMRO. www.amro-asia.org.

untouchable.¹² This is a good protection against potential exertion of undue influence or actions that could alter the neutrality of its work.

- (ii) AMRO's budget is funded by its members,¹³ thus there is no pressure for it to generate revenue. This financial arrangement affords AMRO staff more freedom to frankly express opinions they derive from their analyses, without being concerned about pleasing the "customers". In this regards, the opinions of AMRO should be more credible than of those of research departments of organizations that need to generate profits and may hold back opinions that may not be popular with their customers.
- (iii) AMRO became an international organization in February, 2016. Its international status, and the fact that it does not belong legally to one single country, gives AMRO a better corporate standing, a better image of neutrality, and legal protection under international law.
- (iv) The international compensation for its personnel, especially for its expatriate staff who "shall be exempted from taxation on salaries and emoluments paid to them by AMRO"¹⁴ is an advantage in attracting high-caliber staff. This should enable AMRO to achieve its criteria of hiring staff, which stress "the paramount importance of securing the highest standards of efficiency and of technical competency."¹⁵
- (v) A surveillance unit like AMRO, dedicated to a particular region, is a plus in enhancing a regional safety net. AMRO's work focus is on its member countries in Asia, and its head office is situated in the region. Thus, its geographic location and work scope create closer ties and a deeper understanding of Asian affairs. Its staff, although international, is expected to be recruited on a "regional geographical basis"¹⁶ which may result in staff who have intimate knowledge about the region.
- (vi) Being regional, AMRO has better access to information about, and a deeper cultural understanding of, the issues in Asia and how people in the region operate. The organization's proximity and cultural sensitivity are advantageous since the nature of the surveillance requires timeliness and an ability to convince policy makers to take action to prevent or to improve a situation that could lead to a major crisis.
- (vii) AMRO presents its surveillance reports directly to high-level officials of each country member's Ministry of Finance and Central Bank. The private process of presenting the reports allows a faster and more open policy dialogue than those from published reports. The private nature of the dialogue, which takes place behind closed doors, is also more amenable to the Asian culture where face saving is of critical importance.
- (viii) The small staff size, although a limitation for work of such importance, scope, and speed, has a plus side. The small office creates a good flow of information and exchange of knowledge, increasing depth of individual analysis and levels of integration.

¹² AMRO. Agreement Establishing AMRO, Article 18.

¹³ Ibid., Article 13.

¹⁴ Ibid., Article 19.

¹⁵ Ibid., Article 11.

¹⁶ Ibid.

- (ix) ASEAN+3 has shown a strong commitment to regional financial cooperation. If it keeps up its efforts to support AMRO, it should be able to expand the scope and significance of its work.
- (x) Given that the CMIM does not have a permanent secretariat, AMRO, by default, “has already assumed a substantial secretariat role for the CMIM thus far.”¹⁷ One role of the permanent secretariat is to implement the usage of swap lines when a member country needs it. To prepare for this important task, AMRO “conducted a number of Test Runs to test its operational readiness.”¹⁸ It expressed a desire to do more for this function and become a “Crisis Manager”.¹⁹
- (xi) Nevertheless, it seems that AMRO is only filling in, until (and if) a permanent secretariat is created.
- (xii) Some past works have criticized AMRO for its lack of a conditionality framework for members to utilize CMIM.²⁰ But, the initial motivation of the members in setting up CMIM and AMRO was a desire to have an Asian alternative to international organizations such as the IMF to deal with crisis financing. Based on the region’s experiences of financial crisis management in 1997–1998, setting conditionality may make members more reluctant to use the facility. Of equal importance, the Asian culture generally prefers a gentler and more flexible approach to problem solving than having rigid, legal conditionality imposed upon it.

2.1 Strengthening the Effectiveness of the Association of Southeast Asian Nations, the People’s Republic of China, Japan, and the Republic of Korea Macroeconomic Research Office

AMRO was set up and has expanded in only a few short years to take on the critical responsibility of timely macro-surveillance for various countries in Asia. There are areas that it can explore to further strengthen its effectiveness.

- (i) If decisions made by the Executive Committee cannot be reached by consensus, then they will be sought through “no less than two-thirds of the voting power.”²¹ The weight of the voting power is allocated based on the percentage of resource contribution to the CMIM Swap Line (Appendix 2). Countries that contribute more have larger voting power. Potentially, this structure may dilute the intention of making AMRO an “independent surveillance unit”²² whose operation can be carried out “independently and without undue influence of any member”.²³

¹⁷ Junhong. 2016. Keynote Speech.

¹⁸ Ibid.

¹⁹ Ibid.

²⁰ West. 2014. Asian Economic Surveillance.

²¹ AMRO. Agreement Establishing AMRO, Article 9.

²² Ibid., Article 5.

²³ Ibid.

The nature of surveillance work is to keep track of—or detect—potential problems, send early warnings, and offer recommendations. It is unavoidable that surveillance work sometimes requires the bearing of bad news and warnings. No one likes to receive bad news or warnings, especially if they are responsible for the causes, or if they must make changes to rectify the bad situation. Thus, the nature of surveillance requires any organization in this line of work to maintain a delicate balance between being upfront about the analyses and being culturally and politically sensitive. Being perceived as timely and independent is, therefore, critical for AMRO's effectiveness. A 'one man one vote' principle is more conducive to achieving the goal of independence and neutrality. In this way, the amount that a member country provides will not influence the outcome through the weightage of its vote.

- (ii) The ASEAN+3 countries contribute AMRO's budget. Although this enables AMRO to work without the need to generate its own revenue, the reliance on contributions may have its own complexity. The amount each country is willing to give each year, for example, may depend on the economic or fiscal health of the country. AMRO needs to make country members aware of its significance to keep their commitment and support, regardless of the economic conditions, or the health of their annual fiscal budget.
- (iii) AMRO does not have the authority to force members to heed its analyses or advice. This makes AMRO essentially a research institution that provides analyses and advice to members in an informal manner. It is possible that members may ignore AMRO's work, at the expense of raising systemic risk over time, especially if the advice is politically unpopular.
- (iv) For member countries to value AMRO, the quality and timeliness of its work are of critical importance. Currently, AMRO has about 25 analytical staff to cover 14 member countries as well as regional and global conditions. This number of staff is very small compared to other international organizations that carry out similar work.²⁴ This point has been mentioned in several other studies, and AMRO has been gradually expanding. But, given the complex interlinkages, and the rapid speed at which contagion can transmit, ensuring that there are sufficient resources to carry out the work is a top priority.
- (v) One past study²⁵ pointed out that AMRO's "bilateral surveillance work...tend to focus too narrowly on the domestic economy and less on external factors". Without reading AMRO'S actual country reports, which are kept confidential to the public, it is hard to know if this critique is applicable to AMRO's current work. But, given the increasing connectedness among countries, especially the ongoing economic integration among ASEAN nations under the ASEAN Economic Community plan, it is important to keep track of external factors important to systemic risk for the entire region.
- (vi) Since the subprime crisis of 2007–2008, it is apparent that the financial sector plays several vital roles, including being a potential cause of major crises, an important crisis contagion carrier, and a monetary policy transmission device for crisis resolution. It is important that surveillance work should include a constant assessment of developments in the financial sector of a country and its linkages with global banking has been identified. There is evidence that AMRO recognizes this point and some of its work has been focused on

²⁴ West. 2014. Asian Economic Surveillance.

²⁵ Siregar and Chabchitichaidol. 2014. Enhancing the Effectiveness of CMIM and AMRO.

attempting to address issues in this area.²⁶ This line of work should continue, with a comprehensive coverage of the financial sector—both the official and the shadow-banking systems—as an integrated part of macrosurveillance.

- (vii) Another past study indicated that AMRO's surveillance work focused more on potential risks for the short term, and less on those for the longer term.²⁷ Given the small number of analytical staff, this is a pragmatic decision for the time being. However, history teaches us that a financial crisis may take a long time to develop. Some structural flaws or poor business practices may not pose a risk in the short term, but can accumulate to become systemic risks, given time. The subprime crisis of 2007–2008 is a good example of excessive mortgage lending, coupled with derivative products based on those loans which accumulated over several years before the actual crisis became apparent. Thus, if it is not already doing so, the scope of AMRO's work should include a comprehensive assessment of all the factors that can affect systemic risk across time horizons.
- (viii) While AMRO is gradually building up research capability, it may consider a few possibilities to prioritize its use of its available resources.

One possibility is for AMRO to go “niche” to focus on areas that are most crucial for regional economic and financial stability, which are its main tasks. It can cooperate with existing research institutions, universities, and international organizations such as the IMF and the Asian Development Bank (ADB) for other parts of the analyses when producing its reports.

AMRO has recently acknowledged the importance of “cooperation between the different layers of the Global Financial Safety Net, i.e. foreign reserves, bilateral swap agreements, regional financial arrangements (such as CMIM), and IMF resources which may also help address issues such as facility shopping or duplications of functions”.²⁸ It further envisioned that the future role of “CMIM and AMRO may go beyond their regional mandate.”²⁹ In the opinion of the author, this acknowledgement is a step in the right direction and should be pursued to make it a reality as soon as possible.

This kind of cooperation, which can potentially reduce work duplication, is pragmatic, especially in an increasingly connected global economy. It can increase the effectiveness of collaborating organizations while saving resources. However, a few prerequisites are important to make collaboration possible. First, more established institutions will have to find AMRO's work to be of sufficiently high quality, and to add value to their own. Second, there should be a clear division of labor and scope of work, to avoid potential overlaps and conflict. Third, there must be a mechanism for timely exchange of data, and information. This means AMRO and the collaborating organizations must work out their levels of confidentiality, clearance, and reciprocity.

The article that established AMRO also allows cooperation with relevant international financial institutions (such as ADB, the European Stability Mechanism, the IMF, the World Bank and the Organisation for Economic Co-operation and Development) by allowing AMRO to “enter into agreements

²⁶ Siregar and Chabchitichaidol. 2014. Enhancing the Effectiveness of CMIM and AMRO.

²⁷ West. 2014. Asian Economic Surveillance.

²⁸ Junhong. 2016. Keynote Speech.

²⁹ Ibid.

with them”³⁰ to carry out the desired cooperation, especially on a formal basis, and beyond its regional mandates. However, there seems to be inconsistency that may prevent the effectiveness of cooperation because the same article also stipulates that, “No member shall be liable, by reason of its status or participation in AMRO, for acts, omissions or obligations of AMRO arising out of such agreements”. The required cooperation by member is only to “cooperate with AMRO in good faith in AMRO’s surveillance and other activities”. AMRO should consider a legal arrangement that makes the cooperation acceptable to its members.

Another possibility for AMRO to leverage its limited staff is to prioritize member countries that are more vulnerable and focus resources, for the time being, on these countries, with less emphasis on those that are deemed solid. The priority should be reassessed periodically to make sure that AMRO does not neglect members that may be accumulating latent problems that may erupt into a crisis.

- (ix) The limited resources under CMIM are a serious barrier to financial stability in the region. CMIM has a total size for the multilateral swap line of \$240 billion, with a stipulation for the maximum swap amount that each ASEAN+3 member country can use at a time (Appendix 2). Each member can use up to 30% of its quota without being subject to conditionality set by the IMF (the IMF delinked portion). The usage of any amount above the delinked portion is subject to conditions that the IMF sets for its support program.³¹ For example, Singapore’s maximum swap amount is \$22.76 billion (Appendix 2). The delinked portion of the swap line covers less than 10 days worth of imports, and the total quota can cover only 29 days worth of its imports.³²

In other words, as it is currently set up, AMRO can be more effective in delivering an early warning than in resolving a crisis. Once there is a full-blown crisis, resources available for stabilization under the CMIM are still small and can only give the members a little more time to seek assistance from other sources, but are not likely to pull a member out of a major crisis. Coupled with the absence of conditionality in utilizing the swap line, even if AMRO became the Crisis Manager, it would have less enforcing power for crisis resolution than when conditionality is required.

Given its direct role in crisis prevention, it is critical that AMRO ensures that its surveillance works are timely, of high quality, and that its messages are taken seriously by the member countries to prevent a potential crisis.

Besides CMIM and AMRO, there are various other organizations within the Asia and Pacific region whose works are supportive of macroprudential objectives. They include the Southeast Asian Central Banks Research and Training Centre (SEACEN), The Executives’ Meeting of East Asia-Pacific Central Banks (EMEAP) and a few other high-level policy dialogues which take place on a regular basis.

³⁰ AMRO. Agreement Establishing AMRO, Article 5. <http://www.amro-asia.org/amro-agreement/>

³¹ H. Hill and J. Menon. 2014. Financial Safety Net in Asia. New Global Economic Architecture: The Asian Perspective. ADBI.

³² Author’s calculation based on 2015 Balance of Payment data from Statistics of Singapore. (www.singstat.gov.sg) and the average exchange rate S\$–\$ for 2015 (Monetary Authority of Singapore. www.MAS.gov.sg).

3. SOUTHEAST ASIAN CENTRAL BANKS RESEARCH AND TRAINING CENTRE

The SEACEN Centre was established in 1982 as a private company, under Malaysian Law. Its stated objectives are “to promote the understanding of financial, monetary, banking, and economic development matters which are of interest to central banks and monetary authorities of countries in Southeast Asia and to facilitate cooperation among central banks and monetary authorities in the area of research and training.”³³

SEACEN's mission is to build capacity in central banking and foster networking and collaboration among member central banks to promote best practices in central banking. Towards this end, its main activities are conducting training and seminars, collaborative research of the disciplines mentioned, and publishing and distributing the research. It also organizes meetings, including annual meetings of the Board of Directors, to promote collaborations among central bankers.

Since July 2016, SEACEN has undertaken a new strategic direction by strengthening its research capability with the goal of being a thought leader in central banking matters. In addition, it wants to be recognized as the top regional provider of training for central bankers.

The SEACEN Centre has 20 regular members that are central banks and monetary authorities (Appendix 3). In addition, it has seven associate members.³⁴ They are invited, along with the regular members, to attend the annual SEACEN Governors' Conference and High-Level Seminar to exchange views on the main areas of research and topics of interests. These two types of members are also invited on a regular basis to SEACEN's learning programs. SEACEN also has eight observers³⁵ which are central banks invited to take part in its learning programs.

The organization of SEACEN comprises the Board of Governors (BOG), Executive Committee and Staff. The BOG sets its strategies, admits new members and observers, appoints directors of the Executive Committee, and approves its annual budget. Directors of the BOG are governors of members' central banks and monetary authorities. The Executive Committee, on the other hand, is staffed with their deputies to take charge of SEACEN's operations and recommendations for the BOG's approvals.

The operations of SEACEN are carried out by the SEACEN Team, which consists of about 25 staff members³⁶ and is headed by an Executive Director.³⁷ The majority of the staff work on designing and organizing training courses and administrative duties, while there are 11 positions for economists and area experts responsible for research and learning content.

³³ SEACEN Centre. 1982. Memorandum and Articles of Association of the Southeast Asian Central Bank (SEACEN) Research and Training Centre. SEACEN. 27 February.

³⁴ Associate member central banks and monetary authorities of Australia; Bangladesh; Bhutan; Macao, China; Pakistan; Tonga; and Vanuatu. (The SEACEN Centre. www.seacen.org)

³⁵ Observer member banks and monetary authorities are Afghanistan, Iran, Japan, the Maldives, New Zealand, Samoa, Solomon Islands, Timor-Leste, and other economies as approved by the SEACEN BOG, (Footnote 34).

³⁶ Interview with Dr. Hans Genberg, SEACEN Executive Director, 12 July 2016.

³⁷ The SEACEN Centre. www.seacen.org

There is also a SEACEN Expert Group (SEG) on capital flows that deals specifically with this issue. SEG develops frameworks and proposals for management of capital flows. SEACEN staff assist SEG in implementation through providing, processing, and analyzing data on capital flows as well as facilitating communication among SEG members.³⁸

Currently, SEACEN collaborates with 26 strategic partners, including the Bank of International Settlement.³⁹ Appendix 4 shows areas of collaboration with some partners. In addition, it also uses content experts from the financial community who may be academics, or from the public, or private sector. These collaborations help increase SEACEN's coverage and quality beyond the capacity of its small-sized organization.

SEACEN publishes works related to economic and financial issues and central banking practices. Until 2013, it produced a few research studies. In 2014, it streamlined its publication to Working Papers.⁴⁰ Each year, it produces about 5–7 Working Papers on various economic and financial topics. Since October 2014, it has also published the SEACEN Financial Stability Journal, which focuses on “practical implementation issues related to promoting financial stability and systemic risk management from a central bank/monetary authority perspective”.⁴¹ In addition, it publishes conference proceedings from major conferences that it organizes.

3.1 Southeast Asian Central Banks Research and Training Centre's Strengths in its Contribution to Macroprudential Scheme

- (i) SEACEN promotes better central banking practices through training and communication among members—which are primarily ASEAN—and with a few other Asian countries. Although SEACEN's mandate is not directly on macroprudential issues, its work benefits the region and improves its ability to handle these issues in the long term. Central banks play a crucial role in managing macroprudential policies and measures, and SEACEN helps to upgrade their ability. Thus far, SEACEN is the only regional organization in Asia that focuses on central banking.
- (ii) In addition, the training programs and meetings that SEACEN organizes provide opportunities for central bankers from Member, Associate Member, and Observer countries to meet and to work together. Alumni of SEACEN forums may get to know each other over a period of time and build up personal rapport and relationships that benefit their professional interactions and lead to better regional integration.
- (iii) The structure of SEACEN's BOG consists entirely of governors of members' central banks and monetary authorities. Generally, they are bureaucrats who hold their positions for some time, not politicians whose tenure is unpredictable. This structure provides stability and continuity in SEACEN's strategic direction. In addition, central banks are supposedly independent of political influences. One would expect that SEACEN's outputs—whether they

³⁸ Ibid.

³⁹ Ibid.

⁴⁰ Ibid.

⁴¹ Ibid.

are publications, training programs, or meetings—are based on professional frameworks, not political pressure.

- (iv) Following the same logic as above, members of SEACEN are central banks, not countries. Central banks are a part of the bureaucracy, not political parties, and often have independence in their operations. As a result, this set-up should allow SEACEN to be independent of international politics.
- (v) SEACEN's budget is funded by its members, so it does not have commercial pressure to generate profits. It can focus on its organizational missions. The contribution from each member is relatively small and, thus far, SEACEN's budget requests over the years have not been affected by economic conditions in member countries.⁴²

3.2 Strengthening Southeast Asian Central Banks Research and Training Centre's Effectiveness

- (i) With the organization's mandate already specified by the nature of its work, SEACEN plays a supporting role, not a direct role, in macroprudential regulation. The bulk of its activities are training and conferences on issues that are of interest to central bankers. Although some of its publications are directly related to economic and financial stability in the Asia and Pacific region,⁴³ SEACEN does not have the mandate to communicate them directly to the members' policy makers, nor does it have any role in policy advisory. Thus, it is harder for SEACEN to have a direct impact on regional macroprudential policy. Its contribution is indirect through disseminating knowledge and upgrading the skills of central bank officials who work on macroprudential issues.
- (ii) SEACEN has a small number of staff: about 25 personnel,⁴⁴ of which only 11 are economists or experts in areas such as in financial stability or central bank supervision. The rest, which is the majority of the staff, are involved in organizing training programs, meetings, and administrative duties. Currently, SEACEN has no expansion plans.⁴⁵ It is hard to expect that the research outputs of such a small staff could make a significant change to the macroprudential landscape of the region. One way to achieve the most impactful outputs to leverage its small research staff is to focus on research areas that fit its agenda, but are not yet covered by other institutions. There is some evidence that SEACEN has plans to move in the direction of "niche" research such as its work on the payment system.⁴⁶ If it continues in this direction, it may become more prominent in certain fields of research.
- (iii) SEACEN is not an international organization, but a Malaysian corporation. Its new strategic direction of becoming more of a research institution requires increased specialized expertise. Professionals who are of top quality are in short supply in the Asia and Pacific region, thus, their compensation would have to be internationally competitive. This is a consideration if SEACEN is to achieve its goal of focusing more on generating knowledge.

⁴² Interview with Dr. H. Genberg.

⁴³ Ibid.

⁴⁴ Ibid.

⁴⁵ Ibid.

⁴⁶ Ibid.

- (iv) SEACEN's research scope has some overlap with AMRO. Recently, there have been efforts to explore potential collaboration but, thus far, there is no formal collaborative plan.⁴⁷ Given that both AMRO and SEACEN have a small number of staff, both could potentially benefit from collaborating.

In summary, SEACEN plays a supporting role in building the capacity for macroprudential regulations in the Asia and Pacific region through training of central bank personnel, with some research and publications to generate and disseminate knowledge related to economic and financial stability. The benefits derived from SEACEN's work, namely upgrading and expanding members' ability to handle macroprudential issues, are more medium to long term. It is not an organization that directly creates policy impact in the short term.

4. THE EXECUTIVES' MEETING OF EAST ASIA-PACIFIC CENTRAL BANKS

EMEAP was established in 1996 as a joint effort of the central banks and monetary authorities of 11 nations in the Asia and the Pacific region to strengthen the relationships and cooperation among members. Their members are central banks of Australia; the PRC; Hong Kong, China; Indonesia; Japan; Malaysia; New Zealand; the Philippines; the Republic of Korea; Singapore; and Thailand.⁴⁸

The governors of the member central banks hold annual meetings to exchange ideas on economic and financial conditions. They also set policies of the organization's activities and receive updates from the working groups which collaborate on issues important to central banking such as bank supervision, payment and settlement systems, financial markets, etc.

Since 2004, they have also held annual meetings with officials of the Euro system on policies and issues that are of mutual interests and/or of mutual impact. When necessary, EMEAP communicates with other regional central banks on issues that are of mutual significance, such as with the Federal Reserve System about the impact of the Volcker Rule on EMEAP members.⁴⁹

Between the annual meeting of the central bank governors, their deputies meet twice a year for continuity of the agenda. They also monitor the activities of the working groups, which consist of experts on different issues.

Currently there are three working groups: Payment and Settlement Systems, Banking Supervision, and Financial Markets.⁵⁰ They conduct studies on the issues, report the findings to the governors and deputies, and produce publications. There is also a group that studies applications of information technology in banking and communicates to members at the meeting of the Director of Information Technology.⁵¹

⁴⁷ Ibid.

⁴⁸ Executives' Meeting of East Asia Pacific Central Banks (EMEAP). www.emeap.org

⁴⁹ EMEAP. 2014. Re: Volcker Rule Final Regulation Impacts on the EMEAP Region. EMEAP. 3 September.

⁵⁰ Executives' Meeting of EMEAP.

⁵¹ Ibid.

One concrete outcome of the working groups is the creation of the two Asian Bond Funds (ABF). ABF 1 was created in 2003 as a US dollar-denominated bond funds that invests in sovereign and quasi-sovereign bonds issued by the Asian EMEAP members. ABF 2 was created in 2004 with the same concept, but the bonds were denominated in local currencies of the issuers. The main objective of this collaboration is “to further broaden and deepen the domestic and regional bond markets and hence contribute to more efficient financial intermediation in Asia.”⁵²

Working groups conduct research that is mainly of interest to central banks. Members may be able to use the research findings to improve their central banking operations and to enhance its macro-surveillance. Towards this end, EMEAP essentially carries out dialogues among members and financial institutions, both private and international, to promote the financial stability of the region. The committee members also hold meetings at the same time as the deputies’ meetings.

4.1 The Strength of the Executives’ Meeting of East Asia-Pacific Central Banks in Contributing to a Macroprudential Scheme

- (i) It provides another forum for regular communication among the governors and deputy governors of the region. Presumably, the more frequently the top decision makers of members’ central banks meet, the better the exchange of information and collaboration that would result. This should benefit the timely nature required for macroprudential policy.
- (ii) It extends the coverage to central banks outside the region, enabling them to communicate major factors that may impact the Asia and the Pacific region. Given global interconnectedness, these activities may help promote coordination, especially when there is a major threat to the global financial system.
- (iii) Its working groups carry out research that is mainly of interest to central banking. Members may be able to use the research findings to improve their central banking operations. Since central banks are crucial organizations for macrostability, EMEAP plays an indirect role in strengthening the macroprudential capabilities of its members.

4.2 Strengthening the Effectiveness of The Executives’ Meeting of East Asia-Pacific Central Banks

- (i) The scope of EMEAP’s work overlaps with those of AMRO and SEACEN. Its working groups make studies on topics that are similar to those of the other two organizations. For example, SEACEN also works on the payment settlement systems, and AMRO has worked on banking supervision. Its working groups also deal with macro-surveillance and promote dialogues among members on financial stability issues. Again, this seems to overlap with the direct mission of AMRO. It is not clear if EMEAP’s work is substantially different in content to the work of other institutions.

⁵² EMEAP. 2005. The Asian Bond Fund 2 Has Moved into Implementation Phases. Press Statement. EMEAP. 12 May.

- (ii) Thus far, there is no evidence that EMEAP's working groups collaborate with other institutions in their research. Given the similar agenda of EMEAP to other institutions related to macroprudential policy, financial stability, and surveillance, it seems logical that EMEAP would collaborate with the others, or set its own agenda that is clearly distinct from the work of the other organizations.
- (iii) Public information about the work and accomplishments of EMEAP is limited. Besides its concrete successes, such as the two ABFs, which were set up more than a decade ago, there is not much information about EMEAP's more recent achievements. The publications on its website are also limited. It is not clear if it produces many more publications that are simply not posted. EMEAP would perhaps gain more significance if it made its work more transparent.

In summary, EMEAP provides another avenue for the governors and deputy governors of the members' central banks to dialogue and exchange ideas. This agenda promotes more frequent interactions among them, although they also have other opportunities to interact. There seem to be few studies by its working groups and it is unclear if they overlap with the works of other institutions. Its works are given to its member central banks, but EMEAP's mission is not to be a policy advisory. It is up to the members to utilize EMEAP's work. Thus, the benefits of EMEAP's work are indirect and long term in nature. It is to be hoped that EMEAP's studies, and the interaction between the members, improves the exchange of ideas, which may lead to better and faster macroprudential policy outcomes. To accomplish its mission, EMEAP should be more transparent with its work and plans.

5. OTHER HIGH-LEVEL POLICY DIALOGUES

In an effort to promote cooperation and surveillance processes, high-level officials from the ASEAN+3 countries hold meetings on various occasions.

5.1 The Economic Review and Policy Dialogue

One of them is the Economic Review and Policy Dialogue, which is an annual meeting among the ASEAN+3 Finance Ministers. Since 2012, it has also included the governors of the members' central banks. Hence, the name of the meeting was changed to the ASEAN+3 Finance Ministers and Central Bank Governors' Meeting.

The main purpose of the meeting is to discuss macroeconomic and financial issues, with inputs from ADB. Besides the meeting of the Finance Ministers, their deputies also meet twice a year for the same purpose.

5.2 Asia-Pacific Economic Cooperation

Another forum where leaders from countries in Asia and the Pacific meet and collaborate is the Asia-Pacific Economic Cooperation (APEC). The primary goal of this 21-member organization⁵³ is to support sustainable economic growth and prosperity in the Asia and Pacific region.

⁵³ See Appendix 5 for the list of APEC members.

APEC's main areas of focus include the promotion of free trade and investment, regional economic integration, economic and technical cooperation, human security, and sustainable business environments. Its activities seek to forge agreements among members and tangible policy benefits.⁵⁴

Although the mission of APEC extends beyond economic and financial surveillance, it provides a forum for more regional collaboration and policy dialogues which can help strengthen macroresiliency. Leaders of member countries, which also include several ASEAN+3, meet at various APEC meetings such as the Annual Ministerial Meetings, the Sectoral Ministerial Meetings, and other workshops.

5.3 Asia–Europe Meeting

A similar forum that allows more policy discussion and collaboration, but is less formal, is the Asia–Europe Meeting (ASEM) which was created in 1996 to provide “an informal process of dialogue and cooperation”⁵⁵ among 53 member states of Europe and Asia, which includes members of ASEAN+3 and ASEAN Secretariat. ASEM holds Summit meetings for heads of member states, ministerial meetings, and other high-level official meetings on various related issues. In addition, the forum involves regular consultation before international meetings.

In summary, these meetings enhance collaboration and extend it beyond macroprudential issues. Although they may not have a direct impact on regional surveillance and crisis prevention, they provide more opportunities for members to dialogue and interact. The exchanges at these forums can help align and coordinate members' policies which promote regionalism.

6. CONCLUSION

This working paper reviews regional organizations within the Asia and the Pacific region whose work promotes the region's macroprudential ability. It describes their operations and organizational structures to assess their role in improving the regions' ability to resolve and prevent future financial crises. The paper also suggests areas where these organizations can become stronger, to increase their effectiveness.

The review of AMRO, which is tasked with macroprudential surveillance and providing assistance in crisis resolution, shows that it plays an important role and offers several unique features that can contribute to better and more timely macroprudential policy in the region. Given its small size, its lack of authority to enforce its policy recommendations, and the limited budget of CMIM, AMRO is not in a position to replace the dominance of international organizations with large resources such as the IMF when there is a need to resolve a financial crisis. In its current state, AMRO is more effective in raising the alarm at the early warning stages than in crisis resolution at a later stage. The work of AMRO should be supported and expanded, while its coordination with other international organizations could strengthen its work as well as the macroprudential ability of the Asia and the Pacific region.

⁵⁴ Asia-Pacific Economic Cooperation. www.apec.org

⁵⁵ ASEM InfoBoard. www.aseminfoboard.org

SEACEN produces research on central banking and gives training to central bankers. Its work is not directly on macro-surveillance policy, but it plays an indirect role in promoting financial stability in the region through improving the capabilities of central banking staff, and creating forums to strengthen the relationships among members' central bankers. The works of SEACEN indirectly help improve the management of the central banking of its members in the medium to long term, which presumably benefits macroprudential policy, of which a core element is central banking. SEACEN could become more effective if it streamlines its focus and collaborates with other organizations whose works are complementary to its own.

EMEAP organizes meetings to enable the governors and deputy governors of its member central banks to dialogue and exchange ideas. The benefits of EMEAP's work to macroprudential policy is indirect and long term through fostering relationship and interactions among the top decision makers at members' central banks, which may enable better and faster macroprudential policy outcomes. EMEAP also offers some studies to its members but, given that EMEAP's mission is not to be a policy advisory, it is up to the members to utilize EMEAP's work. There is no public information about if, and how, the members have made use of the work, however.

There are also other high-level policy dialogues that take place regularly in the Asia and Pacific region such as APEC, whose focus is to enable members to achieve agreements and policies on the promotion of free trade and investment, regional economic integration, economic and technical cooperation, human security, and sustainable business environment. The scope of APEC goes beyond direct macroprudential schemes, but it provides another forum for more regional collaboration and policy dialogues, which can help strengthen macro-resiliency.

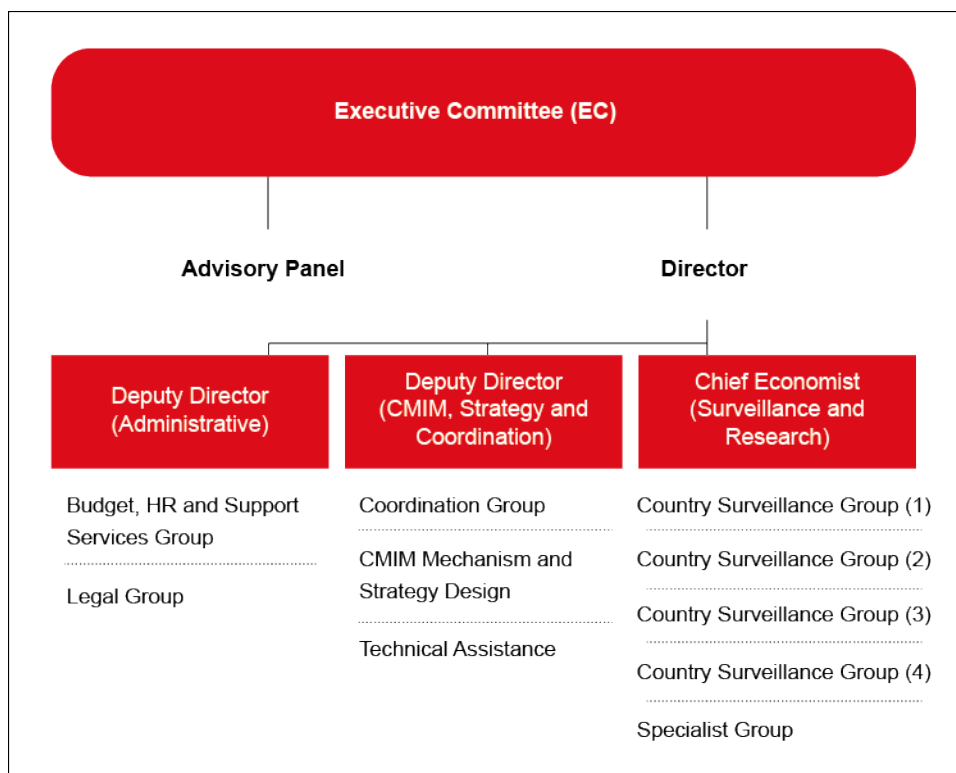
Similarly, ASEM provides informal policy dialogues for its members in Asia and Europe which are additional avenues of interaction among top policy makers that can indirectly strengthen regional integration.

The regional organizations reviewed in this paper contribute directly and indirectly to macroprudential schemes in the Asia and the Pacific region. But, due to the nature of their work objectives and/or relatively small sizes, they should be viewed as useful supplements to the existing international organizations rather than their replacements.

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APPENDIX 1: ORGANIZATIONAL CHART OF THE ASSOCIATION OF SOUTHEAST ASIAN NATIONS, THE PEOPLE’S REPUBLIC OF CHINA, JAPAN, AND THE REPUBLIC OF KOREA MACROECONOMIC RESEARCH OFFICE



CMIM = Chiang Mai Initiative Multilateralization; HR = Human Resources.

Executive Committee

- Comprises: Deputy Finance Ministers and Deputy Central Bank Governors of the ASEAN+3 countries.
- Function: To maintain strategic oversight of AMRO, including to provide guidance and set broad policy direction for the management of AMRO; and
To appoint AMRO Director and Advisory Panel members.

Advisory Panel

- Comprises six members (three from ASEAN, one from the PRC, one from Japan and one from the Republic of Korea) appointed by the Executive Committee. The term is 2 years.
- It is independent from the Director and staff of AMRO, and is accountable to the Executive Committee. The term is 2 years.

- AMRO Advisory Panel members are:
 - Professor Zhang Yuyan, Director, Institute of World Economics and Politics, Chinese Academy of Social Sciences (CASS);
 - Dr Mohamad Ikhsan, Professor of Economics, University of Indonesia;
 - Dr Akira Ariyoshi, Professor, Graduate School of Economics, and Professor and Program Director, Asian Public Policy School, School of International and Public Policy, Hitotsubashi University;
 - Professor Kyung-Wook Hur, Visiting Professor, KDI School of Public Policy and Management (Chair);
 - Dr Maria Almasara Cyd Tũaño Amador, Former Assistant Governor, Monetary Policy Sub-Sector, Bangko Sentral ng Pilipinas; and
 - Dr Bandid Nijathaworn, President and CEO, Thai Institute of Directors.

AMRO Director

- Appointed by, accountable to, and subject to the general control of the Executive Committee; and
- Chief of AMRO Staff.

Source: ASEAN+3 Macroeconomic Research Office. www.amro-asia.org (accessed 9 October 2016).

APPENDIX 2: CHIANG MAI INITIATIVE MULTILATERALIZATION CONTRIBUTIONS, PURCHASING MULTIPLE AND MAXIMUM SWAP ACCOUNT

| Economies | | Financial Contribution (\$ billion) | | Share (%) | | Purchasing Multiple | Maximum Swap Amount |
|-------------------|-------------------------------------|--|-------|---------------|-------|---------------------|---------------------|
| +3 | | 192.00 | | 80.00 | | | 117.30 |
| Japan | | 76.80 | | 32.00 | | 0.5 | 38.40 |
| PRC | PRC (Excluding Hong Kong, China) | 76.80 | 68.40 | 32.00 | 28.50 | 0.5 | 34.20 |
| | Hong Kong, China | | 8.40 | | 3.50 | 2.5 | 6.30 |
| Republic of Korea | | 38.40 | | 16.00 | | 1 | 38.40 |
| ASEAN | | 48.00 | | 20.00 | | | 126.20 |
| Indonesia | | 9.104 | | 3.793 | | 2.5 | 22.76 |
| Thailand | | 9.104 | | 3.793 | | 2.5 | 22.76 |
| Malaysia | | 9.104 | | 3.793 | | 2.5 | 22.76 |
| Singapore | | 9.104 | | 3.793 | | 2.5 | 22.76 |
| Philippines | | 9.104 | | 3.793 | | 2.5 | 22.76 |
| Viet Nam | | 2.00 | | 0.833 | | 5 | 10.00 |
| Cambodia | | 0.24 | | 0.100 | | 5 | 1.20 |
| Myanmar | | 0.12 | | 0.050 | | 5 | 0.60 |
| Brunei Darussalam | | 0.06 | | 0.025 | | 5 | 0.30 |
| Lao PDR | | 0.06 | | 0.025 | | 5 | 0.30 |
| Total | | 240.00 | | 100.00 | | | 243.50 |

| Economies | | Basic Votes | Votes Based on Contribution | Total Voting Power | |
|-------------------|-------------------------------------|--------------|-----------------------------|--------------------|---------------|
| | | | | % | |
| +3 | | 9.60 | 192.00 | 201.60 | 71.59 |
| Japan | | 3.20 | 76.80 | 80.00 | 28.41 |
| PRC | PRC (Excluding Hong Kong, China) | 3.20 | 68.40 | 71.60 | 25.43 |
| | Hong Kong, China | 0.00 | 8.40 | 8.40 | 2.98 |
| Republic of Korea | | 3.20 | 38.40 | 41.60 | 14.77 |
| ASEAN | | 32.00 | 48.00 | 80.00 | 28.41 |
| Indonesia | | 3.20 | 9.104 | 12.304 | 4.369 |
| Thailand | | 3.20 | 9.104 | 12.304 | 4.369 |
| Malaysia | | 3.20 | 9.104 | 12.304 | 4.369 |
| Singapore | | 3.20 | 9.104 | 12.304 | 4.369 |
| Philippines | | 3.20 | 9.104 | 12.304 | 4.369 |
| Viet Nam | | 3.20 | 2.00 | 5.20 | 1.847 |
| Cambodia | | 3.20 | 0.24 | 3.44 | 1.222 |
| Myanmar | | 3.20 | 0.12 | 3.32 | 1.179 |
| Brunei Darussalam | | 3.20 | 0.06 | 3.26 | 1.158 |
| Lao PDR | | 3.20 | 0.06 | 3.26 | 1.158 |
| Total | | 41.60 | 240.00 | 281.60 | 100.00 |

\$ = US dollar; +3 = People's Democratic Republic, Japan, and Republic of Korea; ASEAN = Association of Southeast Asian Nations; Lao PDR = Lao People's Democratic Republic; PRC = People's Republic of China.

Source: ASEAN+3 Macroeconomic Research Office. www.amro-asia.org (accessed 9 October 2016).

APPENDIX 3: MEMBERSHIP OF THE SOUTH EAST ASIAN CENTRAL BANKS' RESEARCH AND TRAINING CENTRES

| | | |
|---|--|--|
|  <p>Autoriti Monetari Brunei Darussalam</p> |  <p>National Bank of Cambodia</p> |  <p>People's Bank of China</p> |
|  <p>Reserve Bank of Fiji</p> |  <p>HONG KONG MONETARY AUTHORITY 香港金融管理局 Hong Kong Monetary Authority</p> |  <p>Reserve Bank of India</p> |
|  <p>Bank Indonesia</p> |  <p>The Bank of Korea</p> |  <p>Bank of the Lao PDR</p> |
|  <p>BANK NEGARA MALAYSIA CENTRAL BANK OF MALAYSIA Bank Negara Malaysia</p> |  <p>The Bank of Mongolia</p> |  <p>Central Bank of Myanmar</p> |
|  <p>Nepal Rastra Bank</p> |  <p>Bank of Papua New Guinea</p> |  <p>Bangko Sentral Ng Pilipinas</p> |
|  <p>Monetary Authority of Singapore</p> |  <p>Central Bank of Sri Lanka</p> | <p>http://www.cbc.gov.tw/mp2.html</p> |
|  <p>BANK OF THAILAND Bank of Thailand</p> |  <p>State Bank of Vietnam</p> | |

Source: The SEACEN Centre. www.seacen.org (accessed 9 October 2016).

Associate Members

SEACEN has seven Associate Member Central Banks/ Monetary Authorities that are regularly invited to participate in all SEACEN learning programs as well as the annual SEACEN Governors' Conference/High-Level Seminar. The list of the Associate Members and their web links are given below:

| | |
|---------------------------------|---------------------------------------|
| SEACEN Associate Members | 1. Reserve Bank of Australia |
| | 2. Bangladesh Bank |
| | 3. Royal Monetary Authority of Bhutan |
| | 4. Monetary Authority of Macao |
| | 5. State Bank of Pakistan |
| | 6. National Reserve Bank of Tonga |
| | 7. Reserve Bank of Vanuatu |

Observers

SEACEN also has eight Observer Central Banks/Monetary Authorities that are regularly invited to participate in all SEACEN learning programs. The list of observers and their web links are given below:

| | |
|-------------------------|---|
| SEACEN Observers | 1. The Afghanistan Bank |
| | 2. The Central Bank of the Islamic Republic of Iran |
| | 3. Bank of Japan |
| | 4. Maldives Monetary Authority |
| | 5. Reserve Bank of New Zealand |
| | 6. Central Bank of Samoa |
| | 7. Central Bank of Solomon Islands |
| | 8. Central Bank of Timor-Leste |

Source: The SEACEN Centre. www.seacn.org (accessed 9 October 2016).

APPENDIX 4: STRATEGIC PARTNERS OF THE SOUTHEAST ASIAN CENTRAL BANKS RESEARCH AND TRAINING CENTRE

| Institute and Areas of Collaboration in Learning Programs | | | | |
|--|--|---|--------------------------------|------------------------------------|
| Institutions | Monetary Policy/ Macroeconomic Management | Financial Stability/ Banking Supervision | Payment and Settlement Systems | Central Bank Governance/ Others |
| Asia-Pacific Economic Cooperation (APEC) Business Advisory Council | | ● | | |
| Asian Development Bank (ADB) | ● | ● | | |
| ADB Institute | | ● | | ● |
| APEC Training Initiative | | ● | | |
| Bank for International Settlements (BIS) | ● | ● | | ● (Legal; IT) |
| Centre for Central Banking Studies, Bank of England | ● | | | |
| Center for Latin American Monetary Studies | ● | | | |
| Bank of Japan | ● | | ● | |
| Committee for Payment and Market Infrastructure/BIS | | | ● | |
| Deutsche Bundesbank | | ● | | |
| Federal Reserve System, US | ● | ● | | |
| Financial Stability Institute/BIS | | ● | | |
| International Centre for Leadership in Finance | | | | ● (Leadership) |
| International Monetary Fund (IMF) | ● | | | |
| IMF Institute | ● | ● | | |
| Irving Fisher Committee on Central Bank Statistics | ● | | | |
| Islamic Development Bank | | ● | | |
| Office of Comptroller of the Currency, US | | ● | | |
| Office of the Superintendent of Financial Institutions, Canada | | ● | | |
| Toronto International Leadership Centre | | ● (Leadership) | | |
| World Bank | ● | ● | | |
| World Bank Institute | ● | ● | | |
| World Bank Treasury | | | | ● (Reserve Management) |
| Harvard Club of Malaysia and Charles River Centre | | | | ● (Leadership) |
| International Association of Deposit Insurers | | ● (Deposit Insurance) | | |
| Consultative Group to Assist the Poor | | ● (Microfinance, Access to Finance) | | |

IT = information technology; US = the United States.

Source: The SEACEN Centre. www.seacen.org (accessed 9 October 2016).

APPENDIX 5: MEMBERS OF ASIA-PACIFIC ECONOMIC COOPERATION

| APEC Members | Date of Joining |
|--------------------|-----------------|
| Australia | 6–7 Nov 1989 |
| Brunei Darussalam | 6–7 Nov 1989 |
| Canada | 6–7 Nov 1989 |
| Chile | 11–12 Nov 1994 |
| PRC | 12–14 Nov 1991 |
| Hong Kong, China | 12–14 Nov 1991 |
| Indonesia | 6–7 Nov 1989 |
| Japan | 6–7 Nov 1989 |
| Republic of Korea | 6–7 Nov 1989 |
| Malaysia | 6–7 Nov 1989 |
| Mexico | 17–19 Nov 1993 |
| New Zealand | 6–7 Nov 1989 |
| Papua New Guinea | 17–19 Nov 1993 |
| Peru | 14–15 Nov 1998 |
| The Philippines | 6–7 Nov 1989 |
| Russian Federation | 14–15 Nov 1998 |
| Singapore | 6–7 Nov 1989 |
| Taipei, China | 12–14 Nov 1991 |
| Thailand | 6–7 Nov 1989 |
| The United States | 6–7 Nov 1989 |
| Viet Nam | 14–15 Nov 1998 |

PRC = People's Republic of China.

Source: Asia-Pacific Economic Cooperation. www.apec.org