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Financial Safety Nets in Asia: Genesis, Evolution, Adequacy, and Way Forward[1]

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Abstract
Financial safety nets in Asia have come a long way since the Asian Financial Crisis (AFC) of 1997/98. Not wanting to rely solely on the International Monetary Fund (IMF) again, the Chiang Mai Initiative (CMI) was created in 2000. When the CMI also proved inadequate following the Global Financial Crisis (GFC), it was first multilateralized (CMIM), and then doubled in size to US$240 billion, while the IMF de-linked portion was increased to 30% of the available country quotas. A surveillance unit, the Association of Southeast Asian Nations (ASEAN)+3 Macroeconomic Research Office (AMRO), was set-up in 2011. These are impressive developments, but are they enough to make the CMIM workable? Without clear and rapid-response procedures to handle a fast-developing financial emergency, we argue it is unlikely that the CMIM will be used even as a complement to the IMF. To serve as a stand-alone option, however, its size or the IMF de-linked portion of funds needs to be further increased, as does its membership to add diversity. Only if AMRO can develop into an independent and credible surveillance authority, would it then perhaps be in a position to lead the next rescue.

Keywords: regional financial safety nets; Chiang Mai Initiative; ASEAN+3; Asia; Asian Monetary Fund; IMF
JEL: F32; F33; F34

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Financial Safety Nets in Asia: Genesis, Evolution, Adequacy, and Way Forward

1. Introduction

The impetus for strengthening regional financial safety nets among members of the Association of Southeast Asian Nations (ASEAN) came following the Asian Financial Crisis (AFC) of 1997/98. Although there was an existing insurance mechanism in the form of the ASEAN Swap Arrangement (ASA)—which had been used a couple of times in the early 1990s, although not really in a crisis context—the ASA proved miserably inadequate in the face of the huge amounts of financing required by countries affected by the AFC. Despite pledges of external support from other countries in the region, the AFC-affected countries were eventually forced to turn to the International Monetary Fund (IMF) for the massive bailouts required. With the resentment that derived from the bitter medicine prescribed, a decision was taken to pursue a regional safety net that could provide a real alternative. The initial step was taken with the creation of the Chiang Mai Initiative (CMI) in 2000, which expanded the bilateral swaps of the ASA, both in size and membership, to include three additional members: the People's Republic of China (PRC), Japan, and the Republic of Korea. The CMI's first major test came in September 2008 when, following the Lehman Brothers collapse, short-term capital quickly exited emerging economies. Members of the CMI that required liquidity support did not turn to it, but instead rushed to secure bilateral swaps with and support from the US, PRC, Japan, Australia, regional development banks, and multilaterals.

Once again, the regional financial safety net had failed its members. This brought about another significant change when, in 2009, the CMI was multilateralized to become the CMIM, with the many swap lines now governed by a single agreement. This was soon followed by a number of other important changes, including the doubling of its size to US$240 billion, increasing the share available without an IMF program to 30% and the setting up of an independent surveillance unit, the ASEAN+3 Macroeconomic Research Office (AMRO), in 2011. These are impressive developments, but are they enough to ensure that the CMIM will be called upon when the next crisis strikes? This is the key question that this paper attempts to answer. And if they are not sufficient, what are the issues that still need to be addressed to make the CMIM viable, either as a co-financing facility with the IMF or as a stand-alone alternative?

The remainder of the paper is divided into five sections. Section 2 looks at history and traces the evolution of the ASA from its early beginnings to the CMI and its expansion. In Section 3, we describe the basic structure and features of the CMIM and the AMRO. Some of the most significant modifications to the CMIM have taken place recently, in the aftermath of the GFC, and these are discussed in Section 4. Section 5 addresses the key question of whether these changes are sufficient to make the CMIM operationally viable. Since we argue that it is still unlikely to be used during a crisis, we canvass areas that need to be reformed, separating what is needed for it to work as a complement to the IMF from what more needs to be done for it to serve as a real alternative. A final section concludes.

2. Early Beginnings: from the ASA to the CMI and its Expansion

Although the impetus for strengthening regional financial safety nets among ASEAN countries was generated by the AFC of 1997/98, they have an even longer history than is often recognized. Going back more than 3 decades to August 1977, the first step toward establishing a regional financial safety net was taken when the central banks and monetary authorities of the original five members of ASEAN—Indonesia, Malaysia, Philippines, Singapore, and Thailand—agreed to establish reciprocal currency, or swap, arrangements. The ASEAN Swap Arrangement (ASA) was created primarily to provide liquidity support for those countries experiencing balance of payments difficulties. Originally intended to be in effect for just 1 year, the arrangement has been extended incrementally, while coverage and the amounts involved have expanded significantly. The initial maximum total amount available for swap transactions under the ASA was a meager US$100 million, with the maximum total outstanding amount provided by each participant limited to US$20 million, but was subsequently increased to US$200 million in 1978. These were swaps among central banks and did not involve a linkage with the IMF.

Nothing much happened with the ASA for the next 2 decades and when the AFC struck, the amounts available were nowhere near adequate. No attempts were therefore made to use the ASA at this time. In 1998, the Japanese government proposed an alternative "Asian Monetary Fund," but neglecting to consult the PRC first, there was insufficient regional support to counter the predictable opposition from the United States (US). With no other alternative, three of the four crisis-affected countries—Indonesia, the Republic of Korea, and Thailand—had to accept an IMF program, the quid pro quo for international support; the fourth, Malaysia, went it alone. The IMF grew extremely unpopular, not just for the prescribed bitter medicine, but that it misdiagnosed the problems—a fact that it later acknowledged.

Discontent with the way in which the IMF managed the rescue programs led to a resurgence of nationalist sentiment that quickly grew regional. The AFC highlighted the need to revisit the issue to see what needed to be done in order to have an effective regional insurance scheme. The first step toward establishing such a scheme was taken soon after in May 2000 with the launch of the CMI, announced at the ASEAN+3 Finance Ministers' Meeting (AFMM+3) in the Thai city after which it is named.

The CMI consisted of two components. The first was an expanded ASA, which covered all (by now 10) ASEAN member countries. In November 2000, the total amount available for swap transactions under the expanded ASA was increased from US$200 million to US$1 billion.

The second component was a network of bilateral swap agreements (BSAs) between the ASEAN countries and the "Plus Three" countries: the PRC, Japan, and the Republic of Korea. These BSAs were initiated in 2002 and grew from a total of US$17 billion at their inception to US$31.5 billion in 2003 and US$36.4 billion in 2004.

In May 2005, during the 8th AFMM+3, the amount of the expanded ASA was doubled from US$1 billion to US$2 billion. But the action continued to center around the BSAs between ASEAN countries and the Plus Three countries, rather than the expanded ASA. The number of BSAs and the amounts involved continued to grow over time. By the time of the AFMM+3 in Madrid in May 2008, the size of the BSAs had increased to US$84 billion **(Table 1)**.

(Table 1 about here).

3. CMIM and AMRO: Basic Structure and Salient Features

If the AFC lit the fuse for the need to transform the ASA into the CMI, then the GFC of 2008 highlighted the continued shortcomings of that transformation. As with the AFC, the regional safety net was inadequate when the GFC hit. Given the CMI's small size and absence of rapid-response mechanisms, affected countries resorted to bilateral swaps with and support from the US, Japan, Australia, and regional agencies. The meetings of the AFMM+3 that followed agreed to radically transform the CMI in several ways. First, the finance ministers decided to expedite the multilateralization of the CMI. They agreed that funds available under the CMIM should be a self-managed reserve pooling arrangement, governed by a single contract, reducing costly and wasteful duplication. The finance ministers also confirmed that the proportion of the contributions from ASEAN and the Plus Three countries to the CMI would be 20% for ASEAN, and 80% collectively for the PRC, Japan, and the Republic of Korea. Japan and the PRC[2] would contribute identical shares of the total reserve pool (32%), which was double the Republic of Korea's share. Second, they agreed to further expand the pool of foreign currency reserves. The size of the fund thus grew from US$36.5 billion in 2001–05, to US$84 billion in 2008, and to US$120 billion in May 2009. The CMIM formally came into effect on 24 March 2010.

3.1 CMIM

The CMIM operates as a common US dollar liquidity pool: a member state can swap its local currency for US dollars from this pool in the event of a balance of payments or liquidity crisis. As a self-managed reserve pooling system, contributions remain in the individual central banks of member countries and are not actually paid into a common or centralized fund. The availability of CMIM funds to a particular member country is limited by its borrowing quota **(Table 2)**. The maximum amount that each country can borrow is based on its contribution multiplied by its respective borrowing multiplier. The multiplier coefficient of the CMIM's borrowing quotas is designed to favor the smaller ASEAN economies. The borrowing multiplier for Brunei Darussalam, Cambodia, the Lao People's Democratic Republic (Lao PDR), Myanmar, and Viet Nam is therefore set at 5. Among the rest, the borrowing multiplier is set at 2.5 for Hong Kong, China; Indonesia; Malaysia; the Philippines; Singapore; and Thailand; 1 for the Republic of Korea; and 0.5 for Japan and the PRC.

(Table 2 about here).

A country that requests to draw funds has to meet conditions before the voting for a swap request. These include a completed review of the economic and financial situation, compliance with covenants, such as submission of a periodic surveillance report, and participation in the ASEAN+3 Economic Review and Policy Dialogue (ERPD) process. These are hardly stringent conditions, and should not pose a problem for most, if not all, of the member countries. It is not the stringency of the requirements that is a problem, but rather the time involved. For instance, it is unclear how long a review of the economic and financial situation will take to complete, but it is unlikely to be quick, certainly relative to the speed of response frequently required during a financial emergency. In addition to these potentially time consuming requirements, the actual activation procedures may entail an additional 2 weeks.

To access the CMIM, a member country must submit a request to the Coordinating Countries, i.e., the two co-chairs of the ASEAN+3 Finance Minister Process (one from ASEAN and the other from the Plus Three countries). The Coordinating Countries deliver the swap request notice and other relevant information to the Executive Level Decision-Making Body (ELDMB), a non-resident body composed of deputy level representatives from ASEAN+3 finance ministries and central banks, and the Hong Kong Monetary Authority (HKMA). They then need to convene a meeting to decide on the swap request. The ELDMB must respond to the swap request within 2 weeks of receipt of the swap request notice. Decisions on drawings are made by a two-thirds majority (weighted voting system linked to contributions) of the ELDMB, meaning that the Plus Three countries do not individually have veto power. Once the request is approved, the swap providing countries transfer the funds to the account of the swap requesting party, which in turn transfers the equivalent amount in local currencies to the accounts of swap providing countries (AMRO 2012, BSP 2012, and ASEAN Secretariat 2010).

[2] Includes the contribution from Hong Kong, China.

In comparison with other regional safety nets, Henning (2004, p. 61) concluded that "…the Chiang Mai Initiative is more sensitive to preserving the central position of the IMF and not undercutting the IMF in negotiations with borrowing countries than these other arrangements." Although there have been changes since that observation, the central role of the IMF remains. Until recently, a country could draw up to 20% of its quota without needing to have an IMF arrangement or being subject to IMF conditionality. Should a country avail of its full quota, the remainder of the amount to be disbursed would be tied to an IMF program. Presumably this link was intended to help protect the funds in the CMIM, address moral hazard issues, and make up for the lack of an independent surveillance unit that could oversee the CMI's operations. The eventual establishment of AMRO in 2011 has led to a reconsideration of this link, which we now examine.

3.2 AMRO

During its May 2009 meeting in Bali, the AFMM+3 agreed to establish an ancillary institution in the form of an independent regional surveillance unit. AMRO was incorporated on 20 April 2011 as a company limited by guarantee under the Companies Act, Cap. 50, of the Republic of Singapore. It commenced operations 1 month later in May 2011.

The need for an independent surveillance unit was predicated on the multilateralization of the CMI. In a multilateralized setting, monitoring and surveillance had to be enhanced to detect emerging vulnerabilities. CMIM decision-making also had to be supported by an independent unit with a due diligence function, so that the borrowing countries' capacity to meet the repayment conditions of lending countries could be assessed. Unconditional financing when there is a need for policy correction could create moral hazard, both for potential borrowers and for international investors, even when it does not adversely affect the prospect for timely repayment.

AMRO's activities are divided into functions during so-called "peace time" and "crisis time." During peace (non-crisis) periods, AMRO's main responsibility is to prepare quarterly consolidated reports on the overall macroeconomic assessment of the ASEAN+3 region, as well as on individual ASEAN+3 countries. Should a crisis occur, however, its role and responsibilities multiply. During crisis time, AMRO is tasked to (i) provide an analysis of the economic and financial situation of the CMIM Swap Requesting Country, (ii) monitor the use and impact of the funds disbursed under the CMIM Agreement, and (iii) monitor the compliance of the CMIM Swap Requesting Country with any lending covenants to the CMIM Agreement.

AMRO is governed by an Executive Committee (EC) comprising deputy finance ministers and deputy central bank governors of member countries. The EC oversees AMRO and is responsible for providing guidance, setting broad policy direction for the management of AMRO, and appointing the AMRO Director and Advisory Panel members. An Advisory Panel consisting of six members provides strategic, technical, and professional guidance to AMRO. The panel is independent from the Director and staff of AMRO, and is accountable to the EC.

At present, AMRO is being run by a small complement of 12 professional staff, led by the AMRO Director. There are plans to expand the complement of professional staff to 16 in the near future. Since its establishment in 2011, AMRO has initiated a secondment scheme, and created linkages with international financial institutions and various authorities in CMIM member countries. AMRO has also conducted a number of surveillance visits in the region, and presented Economic Review and Policy Dialogue reports at recent ASEAN+3 Finance and Central Bank Deputies Meetings.

4. Post-CMIM Developments

The ongoing uncertainty over the recovery in the US and the continuing crisis in the eurozone has highlighted the need to further strengthen the CMIM's capacity to act as a regional financial safety net (Azis 2012). To address this need, the 15th Meeting of ASEAN+3, held on the sidelines of the Asian Development Bank's (ADB) Annual Meeting in Manila in May 2012, agreed to (i) double the total size of the CMIM from US$120 billion to US$240 billion; (ii) increase the IMF de-linked portion to 30% in 2012, with a view to increasing it to 40% in 2014, subject to review should conditions warrant; and (c) introduce a crisis prevention facility.

These three outcomes were the key decisions announced at this meeting. Another change of an institutional nature that occurred was the upgrading of the AFMM+3 to the ASEAN+3 Finance Ministers and Central Bank Governors' Meeting. That is, for the first time, the central bank governors of the 13 member countries and the head of HKMA were invited to participate in this forum. This is an important development in that it brings together officials responsible for tax and expenditure programs with those handling monetary and exchange rate policies. The crisis prevention facility was introduced in response to calls for an ex ante liquidity support facility similar to those of the IMF—the Flexible Credit Line (FCL) and the Precautionary Credit Line (PCL)—introduced in the wake of the GFC.[3]

As such, the CMIM will now have two separate instruments: a short-term liquidity support facility to address sudden but temporary liquidity shortages, and a crisis resolution facility to address more medium-term liquidity and structural problems. The crisis prevention mechanism will be called the CMIM Precautionary Line (CMIM-PL), while the crisis resolution mechanism will be called the CMIM Stability Facility (CMIM-SF). To be able to access the CMIM-PL, the requesting country must meet the following criteria as ex ante qualifications and ex post conditionality: (i) external position and market access, (ii) fiscal policy, (iii) monetary policy, (iv) financial sector soundness and supervision, and (v) data adequacy.[4]

The total amount that can be drawn by each member country, either for prevention or resolution purposes, shall be within the maximum swap amount set aside for that country. Dual-drawing from both CMIM-SF and CMIM-PL shall be restricted, with the CMIM-SF replacing the CMIM-PL if the recipient party is hit by a crisis and needs additional support. For the CMIM-PL, the duration of access is 6 months (with three renewals allowed), totaling 2 years in arrangement period. Maturity is at 6 months for the IMF de-linked portion, and 1 year for the IMF-linked portion. Monitoring will be conducted on a bi-annual basis. Access to the CMIM-PL requires a commitment fee of 0.15%. For the CMIM-SF, the maturity of the IMF de-linked portion is set at 6 months (with three renewals allowed), totaling up to 2 years in the supporting period. Maturity of the IMF-linked portion is set at 1 year with 2 renewals possible, totaling up to 3 years in supporting period. As with the CMIM-PL, monitoring is also to be conducted on a bi-annual basis.[5] Borrowing is charged at the London Interbank Offered Rate (LIBOR) rate plus a premium.

5. The Way Forward: Filling in the Remaining Gaps in the Regional Safety Net

The agreements reached at the recently concluded 15th Meeting of ASEAN+3 Finance Ministers and Central Bank Governors represent a significant step toward transforming the

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[3] The ASEAN+3 Finance Ministers had already commented on the desirability of such a facility at their 2011 Ha Noi meeting, noting that "…we instructed the Deputies to initiate a study on the design of a possible crisis prevention function for CMIM, including the size, further collaboration with the IMF, and the role of AMRO."

[4] The Joint Statement of the 15th ASEAN+3 Finance Ministers and Central Bank Governors Meeting. 2012. 3 May, Manila, Philippines.

[5] Ibid.

CMIM into a more credible regional financial safety net. Nevertheless, the key question remains as to whether these changes, however significant, are actually sufficient to make the CMIM an option that members are likely to use in the event of a liquidity crisis. And as of now, it only makes sense to think of the CMIM as catering to a liquidity crisis, and not the more common deep fiscal crisis requiring a structural adjustment program. So, the question is, have these changes made the CMIM useable to counter a liquidity crisis? And if so, useable in what way? There are two options that are relevant in this context. At the moment, the CMIM is set-up to act as a co-financing mechanism with the IMF. This is not to downplay its role but rather to recognize that the bulk of its resources are tied to an IMF program. From **Table 3**, which describes and compares the salient features of the other regional financial mechanisms that exist around the world, we can see that most also operate in a somewhat similar fashion. This is the first and current prospect option. The other option is for the scheme to operate as an independent mechanism, serving as an alternative to the IMF. It is worth noting that acting as an alternative in this context does not necessarily mean excluding any role for the IMF, but rather one where the CMIM plays the lead or dominant role.

(Table 3 about here).

Despite the significant changes made, it appears that the CMIM, as it currently stands, can do neither. In its current configuration, it is unlikely that the regional safety net will be called upon at all, as evidenced by the fact that it has never been used despite the need for liquidity by several members during the GFC. At the moment, it is neither a complement nor an alternative to the IMF. We now examine what is required in terms of operationalizing each of these two options.

For the CMIM to serve its immediate function as a complement to the IMF, a number of issues relating to operating procedures need to be resolved. Fixing these procedural problems is also necessary—but not sufficient—for making it viable as an alternative to the IMF. For it to evolve into an alternative to the IMF, some longer-term issues relating to size, membership, and surveillance capacity need consideration as well.

5.1 CMIM as a Complement to the IMF

Irrespective of whether the CMIM is to be a complement or an alternative to the IMF, it needs to urgently address the speed and efficiency with which requests for assistance can be activated. As noted earlier, a request for emergency support could take up to 2 weeks to process. There is also some uncertainty over the steps involved and precise information to be provided, among other concerns (Azis 2012). Part of the problem lies with the fact that the CMIM is not a fund but rather a reserve pooling system whereby country contributions remain with the respective central banks or monetary authority. The fact that the decision also rests with a high-level, non-resident body further increases the likelihood of delay. The EC as the decision-making body, after all, comprises deputy finance ministers and deputy central bank governors of member countries.

The real competitor to the CMIM–IMF option is bilateral swaps, and other similar standby arrangements. These are not only quick-disbursing, but also come without explicit conditionalities as they are adequately collateralized in most cases. Although the introduction of the CMIM-PL was supposed to help improve the flexibility and timeliness of liquidity support to address short-term liquidity problems, the procedural issues mentioned earlier, combined with its continued linkage to an IMF program, may very well undermine its actual usefulness. As noted earlier, countries have been reluctant to apply for financing under the IMF's own crisis prevention facilities for fear of adverse signaling effects (Pickford 2011).

It has been suggested that linkage to a standard IMF program should not be required in the case of temporary, short-term liquidity problems. Sussangkarn (2011) argues that an IMF program should only be invoked if a country needs to roll over the swap more than a certain predetermined number of times, with the IMF joining the battle only if the situation becomes a more medium-term structural problem. Under the CMIM's current arrangements, this would mean that the linkage would only apply to financing under the CMIM-SF. By not invoking an IMF link immediately, countries with temporary liquidity problems will be more willing to use the CMIM if they feel that the funds would be available without delay. At the same time, knowing that an IMF link will be required after a certain period will encourage the country to take appropriate corrective actions to avoid having to be under an IMF program. This could go a long way toward making the CMIM–IMF option viable as a liquidity support mechanism. But the largest contributors, Japan and the PRC, who are in essence "creditors" because they can withdraw less than what they have put in (i.e., a multiplier of 0.5), must feel that their contributions are secure under such an arrangement. With AMRO still in its infancy, it is likely that they will continue to seek cover from IMF involvement to ensure that their funds are safeguarded, even when used for short-term liquidity support.

5.2 CMIM as an Alternative to the IMF

Next we turn to the viability of the CMIM as a stand-alone option, or one without IMF involvement. At present, this applies only if a country does not exceed 30% of its quota. There are basically three outstanding issues that need to be addressed in order to further strengthen the viability of this option. These relate to size, membership, and surveillance capacity. Although all of these reforms are desirable, they are not equally important. Some are complementary, such as the size of the fund and country membership, while building up the surveillance capacity and credibility of AMRO could make the small size and membership of the CMIM less binding constraints.

Further Increasing the Size of the CMIM

The ongoing crisis in the eurozone is a potent reminder of the massive amounts of financing required to stem a systemic liquidity crisis. Although the eurozone crisis has its roots in fiscal insolvency, the point remains that the sums involved in a bailout for any kind of regional crisis that spreads across countries is likely to be massive. Although the CMIM's size has been increased substantially since 2008 to currently stand at US$240 billion, it is unlikely to be sufficient if there is a full-blown systemic crisis in East Asia, especially if it spreads across several members. During the AFC, Thailand received over US$17 billion in emergency liquidity. Yet, Thailand (and the four other original ASEAN members) can access only a fraction of this amount, about US$7 billion in 2012 US dollars, from the CMIM without an IMF program. Indonesia received almost six times (US$40 billion) the amount of its de-linked portion of the CMIM, or an even greater multiple if converted into today's dollars. The Republic of Korea was the other crisis-hit country that availed of an IMF-led program and bilateral support that totaled US$57 billion, while today its full quota with the CMIM is about US$38 billion.

For the CMIM to be a viable stand-alone option, either the size of the overall fund or the percentage of the de-linked portion needs to be increased substantially before it is attractive to the five original ASEAN members. These countries have bilateral swaps that they are more likely to call upon should a crisis hit, as recent experience has shown. From **Table 4**, we can see that the Philippines has bilateral swaps with the PRC, Japan, and the Republic of Korea. Indonesia has them with the PRC and Japan; Singapore, Thailand, and Malaysia each have swaps with the PRC. These are the ones that are currently in force, but there are more that are up for renegotiation, as listed in **Table 5**. If national reserves are the first line of defense in the event of a liquidity crisis, then bilateral swaps are designed to supplement them. But these bilateral swaps themselves might be insurance against a regional insurance scheme like the CMIM when it is perceived to be unusable.

(Table 4 about here).

(Table 5 about here).

It is apparent that the CMIM was never intended for use by the Republic of Korea or its two largest contributors, the PRC and Japan. This point has been reinforced by the bilateral swaps between these three countries announced virtually in tandem with the doubling of the CMIM. The Plus Three countries have also agreed to promote investment by their respective foreign reserve authorities in one another's government bonds.

So if the CMIM was never intended for use by its largest contributors, and if the country quotas of the original five ASEAN countries are insufficient when judged by the experience of the AFC, could the CMIM still be used by ASEAN's newer, smaller members? After all, for these countries, their full quotas are a quite substantial share of their individual reserves **(Table 6)**. Nevertheless, they may still be insufficient for a bailout. For example, Cambodia's contribution of US$240 million enables it to borrow up to five times that amount, but it can only borrow US$360 million if it wants to avoid signing on to an IMF program. As of February 2012, Cambodia's total reserves (less gold) stood at US$3.64 billion, which is just more than three times its borrowing limit with the CMIM. Should a crisis strike, and given the small size of Cambodia's country quota as a share of its reserves, Cambodia could either rely on its own reserves or would need to go beyond the CMIM, depending on the severity of the crisis. The same is likely to be true of the other new members of ASEAN.

(Table 6 about here).

But the smaller, poorer countries of ASEAN—Cambodia, Lao PDR, Myanmar, and Viet Nam (CLMV)—face another potential risk by being part of the CMIM. To illustrate, consider a situation where some other country faces a liquidity crisis and decides that it will call upon the CMIM for at least part of its emergency funding needs. If this happens, then the CLMV, like other members except the requesting country, will be called upon to contribute their share of the rescue package (the "Contribution" column in Table 2). As noted above, the contributions of the CLMV as a share of their respective national reserves is significant, and we could have a situation where the poorest countries are assisting in bailing out a much richer country. If the requesting country is afflicted by a crisis that is not purely domestic or of its own making, then the possibility of contagion raises the vulnerability of other countries, and further increases the cost of having to contribute to its bailout. We have seen this happen during the eurozone crisis when Slovakia contributed to Greece's bailout package, even though it is a much poorer country. The CMIM agreement does provide for an opt-out or escape clause; this would require either the approval of the EC or the existence of highly extenuating circumstances.[6] If one or more countries start opting out, and if this leads to a domino or snowballing effect, then the CMIM will simply fail to deliver. The associated loss of credibility may be irreversible.

[6] The escape clause states: "In principle, each of the CMIM parties may only escape from contributing to a swap request by obtaining an approval of Executive Level Decision-Making Body. In exceptional cases such as an extraordinary event or instance of *force majeure* and domestic legal limitations, escape is possible without obtaining ELDMB approval."

It has been suggested that member countries may have to move away from self-insurance in the form of holding large foreign reserves, and start shifting funds toward the CMIM. Apart from further increasing member country's contributions to the CMIM, Sussangkarn (2011) also proposes attaching additional bilateral swaps from willing member countries to a CMIM swap. Although this is an interesting proposal, the question as to why bilateral swaps are being pursued in tandem with the CMIM needs to be answered first. If it is to circumvent the procedural difficulties and associated delays, then these issues need to be addressed before any such linkage is likely to be possible. As noted earlier, it may well be the case that these bilateral swaps are being pursued as an alternative defense mechanism to the CMIM and therefore attaching them to the CMIM is either unlikely to be favored, if CMIM procedures apply, or purely cosmetic, if they do not.

If this is indeed the case with the CMIM, then even the seemingly innocuous statement by Takehiko Nakao, Japan's Vice Finance Minister for International Affairs, that "having this kind of mechanism is better than having nothing," may have been more than just generous, but also possibly wrong.[7] If the CMIM is unusable for one or more members, it can actually reduce the capacity of these members to stave off a liquidity crisis by reducing their uncommitted national reserves, which is a country's first line of defense. How can an unusable CMIM increase the vulnerability of members to crisis? Consider what happened during the GFC. As noted, Indonesia, the Republic of Korea, and Singapore were forced to pursue bilateral swaps when capital started rapidly exiting their economies. The fact that they had to pursue this option itself suggests that national reserves were considered insufficient in the sense that a country would not want to completely or even severely deplete its reserves during a crisis whose full magnitude is still unknown. In times of potential or impending crisis, perceptions matter even more—a view underlined by the fact that bilateral swaps are often negotiated before, rather than during or after, a liquidity shortfall. At the margin, however, it could be that the commitment that a country without plentiful reserves, like Indonesia for instance, had made to the CMIM could have made the difference in terms of such perceptions of sufficiency. The problem only grows in magnitude as the CMIM expands in size but continues to be unusable, for whatever reason. But the effects will vary by country, depending on how abundant their reserves are to begin with. Again, the smaller, poorer countries will be most at risk, while the bigger, richer ones will be least affected.

Members also cannot operate by ignoring the amount of their reserves committed or promised to the CMIM, or the system will break down. For instance, consider again the case of the CLMV. Since these are countries without the ability to secure a bilateral swap, given the low collateral value of their domestically issued currencies, they may have to resort to the CMIM (and\or the IMF) in times of crisis. If other members fear they may face a liquidity crisis that they are unable to manage, and therefore ignore their commitments, then there is a real possibility that the CMIM may not be able to deliver on one or more requests from the CLMV. As with a domino effect with opt-out requests, this too would likely mark the end of the CMIM, both in theory and in practice.

It also remains to be seen whether the recent increase in bilateral currency swap arrangements among the Plus Three countries will be extended to other CMIM members to bolster existing swap lines with these countries. And even if they did, it is unclear if the Plus Three countries

[7] Quoted in A. Rowley, S. Verma, and M. Townsend. 2012. New Fund Seen as Asia's Own IMF. *Emerging Markets* 4 May. Available at http://www.emergingmarkets.org/Article/3023530/New-fund-seen-as-Asias-own-IMF.html?LS=EMS648101

would be amenable to managing these bilateral swaps under the same conditions as the CMIM swap, unless of course they didn't want them to be used.

The IMF has already raised the possibility of establishing a Multi-Country Swap Line (MSL) mechanism that would enable it to offer liquidity lines to a limited set of countries with sound policies and track records (IMF 2010b). This would form part of a broader Global Stabilization Mechanism (GSM), a framework that would allow the proactive provision of financing during a systemic crisis to stem contagion. The GSM also envisions a multipolar liquidity safety network, involving national monetary authorities and regional RFMs, with the IMF at the center (Menon and Morgan 2011). The establishment of such a mechanism, and its involvement with the CMIM, would provide more avenues for increasing the size of liquidity support available to the region beyond the CMIM pool. Even this option for expansion, however, is contingent on the CMIM cleaning up and streamlining its operational procedures.

Expanding the Membership of the CMIM

If the CMIM is to become a stand-alone option, or if it is to evolve into an Asian Monetary Fund-type institution some day, then the issue of membership needs to be considered. Expanding the membership of the CMIM has less to do with potentially increasing the size of the fund than it does diversifying it. More than just increasing membership, there is a need to broaden it to include countries that are less directly or immediately connected to East Asian business cycles. This would increase the ability of the fund to cater to the liquidity needs of a clutch of countries requiring support in the event of a contagious crisis if a sufficient number of contributors were unaffected by it. There is no denying that the process of trying to expand membership is likely to be a complicated and sensitive one. However difficult, there is a need to start the discussion if the CMIM is to survive and prosper as a viable financial safety net, let alone evolve into a de facto Asian Monetary Fund.

The obvious candidates for the first enlargement would be those originally joining ASEAN+3 in the East Asian Summit: Australia, New Zealand, and India. India already has a BSA with Japan, while Australia is a contributor to the recent standby arrangement with Indonesia, which is managed by ADB. Although this expansion makes sense regionally, it is unlikely to diversify the CMIM to any significant extent given that Australia's economic fortunes are very closely linked to the PRC's, and India's are increasingly becoming so. Even New Zealand's economic fortunes are indirectly linked through its strong ties to Australia, and growing ties with the PRC. But the larger the number of contributing members, the greater the likelihood that some will be largely immune from a contagious regional crisis. This is perhaps best illustrated by the fact that Australia was the only advanced country that did not undergo a recession when the GFC hit. Like any risk diversification exercise, the number usually matters.

Candidates for any subsequent enlargement are less obvious, although it is quite unlikely that either the US or Russia—the newest members of the ASEAN+8 grouping—are likely to want to participate. Should Timor Leste accede to ASEAN, then this small island state will almost certainly also sign up for most of ASEAN's protocols, including presumably the CMIM. Should India join the CMIM, the possibility of other South Asian nations joining would also be significantly enhanced. There could be a snowballing effect following the initial enlargement of membership of the CMIM.

Strengthening AMRO's Credibility

Although these reforms are desirable, they are not all equally important. If AMRO could gain credibility as an independent surveillance unit, then the small size and membership of the CMIM would be less binding constraints. After all, even the IMF has relied upon other partners to fund bailouts, first in Asia in 1997/98 and currently in Europe. But in both cases the IMF led the rescue efforts and set the terms, and this is what matters. AMRO needs to be able to do the same. In short, the amount of funds available needs not be a constraint if the capacity to lead a rescue exists. In fact, even if the funds were sufficient, there may be merit in a joint rescue program involving collaboration amongst other regional and\or non-regional partners. In this respect, it is also worth emphasizing that leading a rescue does not entail excluding the IMF, for instance, from participating in setting the terms either; it means having the final say, but not the only say.

Ultimately, the CMIM must rely more on its own independent assessment to make lending decisions—including both in the amount of loans and any conditionality. At present, AMRO still lacks the research capacity, human resources, experience, and the institutional setup to effectively serve as a professional secretariat to the CMIM. Although AMRO has made progress as a relatively new institution, it still functions mostly as a research office for the CMIM, and undertakes a basic surveillance function producing macroeconomic and financial monitoring assessments. The current ERPD process,[8] at which these assessments are presented, is still largely a venue for information sharing at best, and a "beauty contest" at worst, with weak peer review or policy coordination (Menon 2012). Unless there is a commitment from member countries to significantly increase the resourcing of AMRO so that it may strengthen and expand its functions, it is unlikely that it will be able to perform its role as an independent and credible surveillance unit, let alone a full functioning secretariat for the CMIM

Although the Joint Statement of the 15th AFMM re-emphasized the importance of strengthening AMRO's role as an "independent regional surveillance unit in contributing to effective monitoring and analysis of regional economies, early detection of risks, swift implementation of remedial actions, and effective decision-making of the CMIM," they could propose little more than further collaboration and cooperation with the IMF, ADB, and World Bank. Although they requested the deputies to find out how AMRO's organizational capacity could be strengthened at the Deputies Meeting in November 2012, the fact that they never even alluded to the possibility of any increase in funding is telling.

If these are the reforms that the CMIM and AMRO need to undertake in order to become effective, then there is also at least one thing that it should not do. It should avoid the temptation to give in to mission creep and instead focus on core functions, particularly surveillance activities. For instance, recent suggestions that AMRO should introduce a Regional Monetary Unit (Kawai 2010, Rana et al. 2012) are premature and could derail the building of core competencies. There is room for specialization and collaboration, and more specialized functions such as these should be left to other institutions.

Although the CMIM was established with the aim of supplementing existing international financial arrangements, ultimately its goal should be to lead any rescue package in the region. As Henning (2011) and ADB (2011) correctly note, the IMF is still unique among crisis-fighting facilities in the universality and diversity of its membership, and its resources and experience with designing rescue packages; itremains the final resort in efforts to combat regional contagion. In its current incarnation, it also seems unlikely that the CMIM alone will be adequate to address a region-wide systemic financial crisis. An optimistic scenario would see the CMIM

[8] The ERPD is carried out in two stages. The first stage is an unofficial forum where surveillance reports (from AMRO, ADB, and the IMF) are presented to the AFDM+3. It is held bi-annually in March or April and November. The second stage focuses more on issues related to policy involving the AFMM+3, and is conducted once a year on the sidelines of the ADB Annual Meeting.

evolve toward a regime in which the roles are reversed over time, with the CMIM defining conditionality and the IMF being a complementary source of funds. If this optimism is to be justified, then ASEAN+3 must commit to AMRO's development through a substantial increase in its resources. So far, there is little evidence of a commitment of the required magnitude.

6. Conclusion

Financial safety nets in Asia take four forms. The first line of defense has always been national holdings of foreign exchange reserves. The second, and most popular of late, is a bilateral foreign currency swap arrangement. The third is regional safety nets, such as the subject of this paper, an expanded CMIM. In addition there is the global lender of last resort, the IMF. The importance of strengthening regional financial safety nets grew from the AFC of 1997/98. When the AFC struck, the ASEAN Swap Arrangement (ASA) was basically too small (US$200 million) to be of any use. There was no alternative but to turn to the IMF for the massive bailouts required. The IMF grew extremely unpopular, however, not just for the prescribed bitter medicine, but because it misdiagnosed the problems—a fact that it later acknowledged. There was a resurgence of nationalist sentiment that quickly grew regional.

This led to the birth of the CMI in 2000, which expanded the bilateral swaps of the ASA, both in terms of size and membership, to include the PRC, Japan, and the Republic of Korea. The CMI's first test came in September 2008 when, following the Lehman Brothers collapse, short-term capital quickly exited emerging economies. But when the GFC hit, members of the CMI that required liquidity support did not turn to it but instead rushed to secure bilateral swaps with the US, PRC, Japan, Australia, and the multilaterals. Once again, the regional financial safety net had failed its members. This brought about another significant change when, in 2009, the CMI was multilateralized to become the CMIM, with the many swap lines now governed by a single agreement.

More recently, the CMIM has been doubled to US$240 billion, the share available without an IMF program was increased to 30% (and possibly 40% in 2014), and a precautionary line of credit similar to that of the IMF's was introduced. Its surveillance unit, AMRO, has also been up and running in Singapore since 2011. All of this is impressive, and does reflect progress with Asia's financial safety nets. But is it enough? Is it likely that the CMIM will be called upon when the next crisis strikes? Unfortunately, the CMIM still appears unusable, either as a co-financing facility in tandem with the IMF or as a stand-alone alternative. There are a number of reasons, and therefore an equal number of issues, that need to be addressed to make it viable.

First, as a reserve-pooling arrangement, there is no fund but a series of promises. This is not a problem per se but it is when there are no rapid response procedures to handle a fast-developing financial emergency. Unless these procedures are streamlined, the CMIM is unlikely to be called upon even as a co-financing facility when bilateral swaps or even the IMF may be able to deliver the needed liquidity in the required time. If the CMIM is to be a real substitute for the IMF and serve its role as a true regional alternative, then the size of the fund, or the portion de-linked from an IMF program, also needs to be increased substantially. Membership would also need to increase beyond ASEAN+3, not just to bolster the size of the fund, but also to diversify it. But if AMRO could gain sufficient credibility, then the small size and membership of the CMIM would be less binding constraints. After all, even the IMF relied upon other partners to fund the bailouts in Asia in 1997/98 and in Europe today. In both of these scenarios, the IMF led the rescue and set the terms, and this is what matters. AMRO needs to be able to do the same.

Without these changes, and in a region still wary of the IMF stigma, ASEAN+3 is unlikely to turn to the CMIM as a co-financier or a substitute, which explains why countries continue to take the high-cost mercantilist route of self-insurance through excessive holdings of foreign exchange reserves, or why they continue to pursue bilateral swaps separately, often with other CMIM members. In fact, BSAs are quickly becoming the main instrument in Asia's financial safety net. Furthermore, shifting national reserves to a regional fund that is unlikely to be used could actually be counter-productive as it weakens a country's first line of defense. Although ASEAN+3 may appear to have a co-financing facility with the IMF in the CMIM, it is not a useable one. If it wants its own regional safety net, then it has a long way to go. How long is still unclear, but hopefully it can be made workable before, rather than because of, the next crisis.

References:

ADB. 2011. *Reshaping Global Economic Governance and the Role of Asia in the Group of Twenty (G20)*. Manila: ADB.

AMRO. 2012. *Key Points of CMI Multilateralization Agreement*. Available at http://www.amro-asia.org/wp-content/uploads/2011/12/Key-Points-of-CMIM.pdf

Arab Monetary Fund. 2011. *Arab Monetary Fund Annual Report, 2010*. Available at http://www.amf.org.ae/annualrep

ASEAN Secretariat. 2010. *Financial Integration Factsheet*. Jakarta: ASEAN.

I. Azis. 2012. Asian Regional Financial Safety Nets? Don't Hold your Breath. *Public Policy Review 8.* Policy Research Institute, Ministry of Finance, Japan. Pp. 357–76.

Bangko Central ng Pilipinas (BSP). 2012. *Chiang Mai Initiative Multilateralization FAQ.* Manila: BSP.

ECB. 2011. The European Stability Mechanism*. ECB Monthly Bulletin*. July. Available at http://www.ecb.int/pub/pdf/other/art2_mb201107en_pp71-84en.pdf

R. C. Henning. 2004. *East Asian Financial Cooperation.* Washington, DC: Institute for International Economics.

R. C. Henning. 2011. Coordinating Regional and Multilateral Financial Institutions. *Working Paper No. WP11-9*. Washington, DC: Peterson Institute for International Economics. Paper commissioned by ADB through Research and Development Technical Assistance Project 7501, Asia's Strategic Participation in the Group of Twenty for Global Economic Governance Reform. Available at http://www.www.piie.com/publications/wp/wp11-9.pdf

E. Fernández-Arias and E. Levy-Yeyati. 2010. Global Financial Safety Nets: Where Do We Go from Here? *IADB working paper series No. 231.* Washington, DC: IADB. Available at http://www.iadb.org/en/research-and-data/publication-details,3169.html?pub_id=idb-wp-231

H. Hill and J. Menon. 2012. Asia's New Financial Safety Net: Is the Chiang Mai Initiative Designed Not To Be Used? *VoxEU*. 25 July. Available at http://www.voxeu.org/article/chiang-mai-initiative-designed-not-be-used

IMF. 2010a. *Seminar on Regional Financial Safety Nets—Background Information on Participating RFAs*. 8 October 8. Washington, DC: IMF.

IMF. 2010b. The Fund's Mandate—Future Financing Role. *Public Information Notice (PIN) No. 10/51*. 22 April. Available at http://www.imf.org/external/np/sec/pn/2010/pn1051.htm

IMF. 2011. *Strengthening the International Monetary System: Taking Stock and Looking Ahead*. Prepared by the Strategy, Policy, and Review Department in consultation with the Finance, Legal, Monetary and Capital Markets, and Research Departments. Available at http://www.imf.org/external/np/pp/eng/2011/032311.pdf

O. Jeanne. 2010. Dealing with Volatile Capital Flows. *Peterson Institute for International Economics Policy Brief 10-14*. Washington, DC: Peterson Institute for International Economics Policy. Available at http://www.relooney.info/0_New_7565.pdf

M. Kawai. 2010. Reform of the International Financial Architecture: An Asian Perspective. *Singapore Economic Review*. 53. Pp. 207–292.

M. Lamberte and P. Morgan. 2012. Regional and Global Monetary Cooperation. *ADBI Working Paper 346.* Tokyo: ADBI.

J. Menon. 2012. Regional Financial Safety Nets: Crisis Prevention and Mitigation in an Age of Uncertainty. Presentation to the Conference on The Evolving Global Architecture: From a Centralized to a Decentralized System. Nanyang Technological University and ADB Institute. Singapore. 26–27 March.

J. Menon and P. Morgan. 2011. Global Financial Safety Nets. Manila: ADB.

S. Park. 2011. Global Financial Safety Net and Regional Financial Arrangement–IMF Cooperation. *Korea Institute of Finance Weekly Economic Review*. 20 (30).

S. Pickford. 2011. *Global Financial Safety Nets. Chatham House International Economics Briefing Paper*. October. Available at http://www.chathamhouse.org/sites/default/files/public/Research/International%20Economics/1011bp_pickford.pdf

P.B. Rana, W.M. Chia, and Y. Jinjarak. 2012. ASEAN+3 Monetary Integration: Perception Survey of Opinion Leaders. *Journal of Asian Economics*. 23. Pp. 1–12.

C. Sussangkarn. 2011. Institution Building for Macroeconomic and Financial Cooperation in East Asia. Available at http://www.amro-asia.org/wp-content/uploads/2011/11/CS-CMIM-AMRO.pdf

The Joint Statement of the 15th ASEAN+3 Finance Ministers and Central Bank Governors Meeting. 2012. 3 May, Manila, Philippines.

The Joint Statement of the Trilateral Finance Ministers and Central Bank Governors Meeting. 2012. 3 May. Manila, Philippines.

Table 1: Swap Arrangements under the Chiang Mai Initiative
(US$ billion, as of December 2008)

To / From	PRC	Japan	Rep. of Korea	Indonesia	Malaysia	Philippines	Singapore	Thailand	**Total**
PRC		3.0	4.0	4.0	1.5	2.0		2.0	16.5
Japan	3.0		13.0	6.0	1.0	6.0	3.0	6.0	38.0
Rep. of Korea	4.0	8.0		2.0	1.5	2.0		1.0	18.5
Indonesia			2.0						2.0
Malaysia			1.5						1.5
Philippines		0.5	2.0						2.5
Singapore		1.0							1.0
Thailand		3.0	1.0					..	4.0
Cambodia									0.0
Lao PDR									0.0
Myanmar									0.0
Viet Nam									0.0
Sub-total	**7.0**	**15.5**	**23.5**	**12.0**	**4.0**	**10.0**	**3.0**	**9.0**	**84.0**
ASEAN Swap Agreement (ASA, among the 10 ASEAN countries)									**2.0**
TOTAL									**86.0**

ASEAN = Association of Southeast Asian Nations, Lao PDR = Lao People’s Democratic Republic.
Source: Elaborations based on Japan's Ministry of Finance website. Available at http://www.mof.go.jp/english/index.htm. Accessed in February 2009.

Table 2: Contributions, Borrowing Multipliers, and Voting Power under the CMIM

Countries		Financial Contribution (US$ billion)		Share (%)		Purchasing Multiple	Maximum Swap Amount (US$ billion)	Basic Votes	Votes Based on Contribution	Voting Power	
										Votes	%
Plus Three		**192.00**		**80.00**			**117.30**	**9.6**	**192.00**	**201.6**	**71.59**
PRC	PRC (excl. Hong Kong, China)	76.8	68.4	32.0	28.5	0.5	34.2	3.2	68.4	71.6	25.43
	Hong Kong, China		8.4		3.5	2.5	6.3	0.0	8.4	8.4	2.98
Japan		76.80		32.00		0.5	38.40	3.20	76.80	80.00	28.41
Rep. Of Korea		38.40		16.00		1	38.40	3.20	38.40	41.60	14.77
ASEAN		**48.00**		**20.00**			**126.20**	**32.00**	**48.000**	**80.00**	**28.41**
Indonesia		9.104		3.793		2.5	22.76	3.20	9.104	12.304	4.369
Thailand		9.104		3.793		2.5	22.76	3.20	9.104	12.304	4.369
Malaysia		9.104		3.793		2.5	22.76	3.20	9.104	12.304	4.369
Singapore		9.104		3.793		2.5	22.76	3.20	9.104	12.304	4.369
Philippines		9.104		3.793		2.5	22.76	3.20	9.104	12.304	4.369
Viet Nam		2.00		0.833		5	10.00	3.20	2.00	5.20	1.847
Cambodia		0.24		0.100		5	1.20	3.20	0.24	3.44	1.222
Myanmar		0.12		0.050		5	0.60	3.20	0.12	3.32	1.179
Brunei		0.06		0.025		5	0.30	3.20	0.06	3.26	1.158
Lao PDR		0.06		0.025		5	0.30	3.20	0.06	3.26	1.158
Total		**240.00**		**100.00**			**243.50**	**41.60**	**240.00**	**281.60**	**100.00**

ASEAN = Association of Southeast Asian Nations, Lao PDR = Lao People's Democratic Republic.
Source: The Joint Statement of the 15th ASEAN+3 Finance Ministers and Central Bank Governors Meeting. 2012. 3 May. Manila, Philippines.

Table 3: Regional Safety Nets and Financing Mechanisms—Salient Features

	Year Established	Purpose	Resources	Members	Functions	Instruments	Decision-Making and Governance	Link to IMF	Recent Activity
Multilateralized Chiang Mai Initiative (CMIM)	2000	Address short-term liquidity and balance of payments difficulties in the region and supplement the existing multilateral financial arrangements.	US$240 billion. Members commit to provide financial support within the agreed amount of contribution. Funds are transferred from central banks and monetary authorities only when a request for drawing is made.	Association of Southeast Asian Nations (ASEAN) plus the People's Republic of China (PRC), Japan, and Republic of Korea	Lending and surveillance (through the ASEAN+3 Macroeconomic Research Office [AMRO])	Members swap their local currencies with US dollars up to a multiple of their contributions to the scheme. The 90-day swaps can be renewed up to seven times.	Decisions on drawings made by two-thirds majority at the Executive Level Decision-Making Body, consisting of deputy level representatives of the ASEAN+3 Finance Ministries and Central Banks and the Monetary Authority of Hong Kong Special Administrative Region. Voting power is distributed to members according to the amount of contribution, supplemented by basic votes allocated equally.	Initially, a country could draw up to 20% of its quota without being subject to IMF conditionality. This amount was increased to 30% in 2012 and potentially will be increased again to 40% in 2014. Drawing of the remaining amount is conditional on the existence of an IMF-supported program.	None
Arab Monetary Fund (AMF)	1976	Broad, including correct balance-of-payments disequilibria, support structural reforms in private financing	US$2.7 billion. The AMF may borrow from member countries, Arab and foreign monetary and financial	22 Arab countries in North Africa and Middle East	Lending	Mix of six lending facilities to address both short-term liquidity problems and medium-term	Executive Board composed of the chairman and eight members elected by the Board of Governors. Two-	Access to ordinary loan facility must be accompanied by an IMF program.	Four ne loans in amount US$548 million, highest

		and banking, and promote exchange rate stability.	institutions, and markets, and can issue securities.			structural problems, including an unconditional automatic loan facility, and an ordinary loan facility tied to an IMF program.	thirds majority required for a quorum.		of lendi the pas decade
Latin American Reserve Fund (FLAR)	1991 (as successor to the Andean Reserve Fund)	Support member countries' balance of payments through credit and guarantees.	US$2.34 billion. FLAR has an AA composite credit rating.	Bolivia, Colombia, Ecuador, Costa Rica, Peru, Uruguay, and Venezuela	Lending and surveillance	Five types of lending instruments: (i) balance of payments credit, (ii) foreign debt restructuring of central banks, (iii) liquidity credit, (iv) contingent credit, and (v) treasury credit	Each member country has the same voting power (one vote) irrespective of their paid-in capital. Decisions are made by a three-fourths majority.	No official links, although FLAR shares information with IMF unofficially	Balance payme loan to Ecuado 2009. Historic FLAR h been re particula for the smaller membe countrie
North American Framework Agreement	1994	Provide short-term liquidity support	US$9 billion	United States, Canada, and Mexico	Lending	Two-way bilateral central bank swaps for 90-days, renewable up to 1 year	Disbursal only requires bilateral agreement between two participating countries.	US Treasury requires letter from IMF Managing Director	None
European Financial Stabilization Mechanism (EFSM)	2010	Provide external financial assistance to a member state experiencing, or seriously threatened with, a severe economic and financial disturbance caused by exceptional	€60 billion. Funding is obtained by issuing own instruments in euros. The maximum financing capacity of the EFSM is €60 billion and is backed by an EU budget	All EU members	Lending	Loans and credit lines. Amount, average duration (normally about 5 years), and disbursement terms of a loan or credit line are decided by the Council,	Financial assistance is granted by a decision by the Council, acting by a qualified majority on a proposal from the Commission. Policy conditionality is defined by the	While legally the EFSM allows financing solely by the EU, the ECOFIN Council has explicitly stated that activation would only be in the context of a	Activate Ireland (2010) a Portuga (2011)

		circumstances beyond such member state's control.	guarantee.			based on funding conditions.	Commission in consultation with the European Central Bank (ECB) and spelled out in a memorandum of understanding (MoU). The Commission is delegated the authority to monitor the program and approve disbursements. ECB is involved in program design and monitoring, and as a paying agent.	joint EU–IMF program.	
European Financial Stability Facility (EFSF)	2010	Preserve financial stability of Europe's monetary union by providing temporary assistance to eurozone member states in difficulties, i.e., unable to borrow in markets at acceptable rates, caused by exceptional circumstances beyond such member state's control.	€ 440 billion. Funding is obtained by issuing own debt instruments or by entering into other financing arrangements with financial and monetary institutions. Guarantees by eurozone member states to the EFSF are on a pro rata basis, in accordance with their share in the paid-up capital of the European	All members of eurozone	Lending	Loans and bond purchases through the primary market. Funding instruments under the EFSF are expected to have the same financial profile as the related loans but the guarantors may permit EFSF to use a degree of funding flexibility with regard to the currency, timing,	Key decisions under the EFSF Framework agreement are reserved to eurozone member states and generally require unanimity, including the decision to approve loan facility agreements and disbursements under such agreements. The ECB is involved in program design and monitoring,	The framework agreement establishes that financial support by the EFSF is to be provided in conjunction with the IMF and subject to conditionality set out in an MoU negotiated in liaison with the IMF and the ECB. The IMF provided co-financing for Ireland, Portugal, and	Activate Ireland (2010), Portuga (2011), Greece (2011)

			Central Bank (ECB)			interest rate base, and maturity of the funding instruments.	and as paying agent.	Greece programs.	
European Stability Mechanism (ESM)	Entry into force on July 2012	Permanent crisis management mechanism to safeguard financial stability in the eurozone as a whole, replacing temporary solutions such as the EFSM and the EFSF	€500 billion	All members of eurozone	Lending	Assistance will predominantly take the form of loans, known as ESM stability support (ESS). ESS will be conditional on agreement to and compliance with a strict macroeconomic adjustment program. The maturity of the ESS loans will depend on the nature of the imbalances and the beneficiary country's prospects of regaining access to financial markets.	Key decisions in relation to the ESM will be taken by its Board of Governors. A second decision-making body, the Board of Directors, will be responsible for specific tasks delegated by the Board of Governors. ECB involved in conducting debt sustainability analysis, program design and monitoring, and as paying agent.	ESM financial assistance will only be activated upon receipt by the Eurogroup and ECOFIN Presidents, and the Managing Director of the IMF, of a request from a euro area country. Following this request, the IMF will be involved in assessing whether there is a risk to the financial stability of the euro area as a whole, conducting debt sustainability analysis, program design, negotiation and monitoring.	None

Source: Authors' compilation drawing upon information from IMF (2010a), Arab Monetary Fund (2011), ECB (2011), Lamberte and Morgan (2012), and Park (2011).

Table 4: Bilateral Swap Agreements among ASEAN+3 Countries

Country	Partner Country	Amount	Effectivity
Japan	Rep. of Korea	US$30 billion won-to-yen swap Additional US$30 billion dollar-to-local currency swap	Oct 2011–Oct 2012 (1 year)
	Philippines	Philippines: US$6 billion from Japan Japan: US$500 million from the Philippines	May 2012–May 2015 (3 years)
Rep. of Korea	Japan	US$30 billion won-to-yen swap Additional US$30 billion dollar-to-local currency swap	Oct 2011–Oct 2012 (1 year)
	PRC	US$56 billion	Oct 2011–Oct 2014 (3 years)
People's Rep. of China	Rep. of Korea	US$56 billion	Oct 2011–Oct 2014 (3 years)
	Hong Kong, China	US$63 billion	Nov 2011–Nov 2014 (3 years)
	Malaysia	US$28.6 billion	Feb 2012–Feb 2015 (3 years)
	Singapore	US$22.12 billion	July 2010–July 2013 (3 years)
	Thailand	US$11 billion	Dec 2011–Dec 2014 (3 years)

Source: Bank of Japan website.
http://www.boj.or.jp/en/intl_finance/cooperate/index.htm/
ROK Ministry of Foreign Affairs and Trade. ROK Expands Currency Swap with Japan and China.
http://news.mofat.go.kr/enewspaper/articleview.php?master=&aid=3974&ssid=24&mvid=1219
Reuters. Philippines Renews US$6 Billion Swap Deal with Japan, Gets Korean Loan. 4 May 2012.
http://af.reuters.com/article/worldNews/idAFBRE8430M520120504
Centralbanking.com. Malaysia and China Extend Currency Swap Arrangement. 8 Feb 2012.
http://www.centralbanking.com/central-banking/news/2144895/malaysia-china-extend-currency-swap-arrangement
Bloomberg News. China, Hong Kong Expand Currency-Swap Pact to US$63 Billion. 22 Nov 2011.
http://www.businessweek.com/news/2011-11-22/china-hong-kong-expand-currency-swap-pact-to-63-billion.html
Bangkok Post. China, Govt. Sign Currency Swap Deal. 23 Dec 2011.
http://www.bangkokpost.com/news/asia/272071/china-govt-sign-currency-swap-deal
China Daily. China Signs Currency Swap Pact with Singapore. 23 July 2010.
http://www.chinadaily.com.cn/china/2010-07/23/content_11043563.htm
MNI Deutsche Boerse Group. China Data Table: PBOC Currency Swap Agreements. 26 June 2012.
https://mninews.deutsche-boerse.com/content/china-data-table-pboc-currency-swap-agreements-2

Table 5: Bilateral Swap Agreements among ASEAN+3 Countries (up for renegotiation)

Country	Partner Country	Amount	Year Last BSA Signed
Japan	Indonesia	US$12 billion	2009, but under the CMI
Rep. of Korea	Philippines	US$2 billion	2008
People's Rep. of China	Indonesia	US$16 billion	2009
	Philippines	US$2 billion	2007

BSA = bilateral swap agreement, CMI = Chang Mai Initiative.
Source: Bank of Japan website.
http://www.boj.or.jp/en/intl_finance/cooperate/index.htm/

MNI Deutsche Boerse Group. China Data Table: PBOC Currency Swap Agreements. 26 June 2012.
https://mninews.deutsche-boerse.com/content/china-data-table-pboc-currency-swap-agreements-2
The Standard. Swap pool to hit USUS$120b. 23 Feb 2009.
http://www.thestandard.com.hk/news_detail.asp?pp_cat=5&art_id=78611&con_type=1&d_str=20090223
Manila Bulletin. BSP Reviews Bilateral Swap Arrangements. 28 May 2012.
http://mb.com.ph/node/360671/b

Table 6: Total Reserves Minus Gold among CMIM Countries (latest available data)

Country	**Total Reserves** (current US$ million)	**As of**
Brunei Darussalam	1,693	Aug 2011
Cambodia	3,640	Feb 2012
Hong Kong, China	294,493	Mar 2012
China, People's Rep. of	3,326,602	Mar 2012
Indonesia	106,611	Mar 2012
Japan	1,248,875	Apr 2012
Korea, Republic of	313,801	Mar 2012
Lao PDR	703	Dec 2010
Malaysia	133,991	Apr 2012
Myanmar	6,732	Sep 2011
Philippines	65,685	Mar 2012
Singapore	243,582	Mar 2012
Thailand	170,729	Apr 2012
Viet Nam	14,815	Oct 2011
Total	**5,931,952**	

Lao PDR = Lao People's Democratic Republic.
Source: IMF International Financial Statistics.

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