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# Managing Economic Stability under Volatile Capital Flows: East Asia Perspectives\*

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## Abstract

The extent of financial globalization and volatilities of short-term capital flows create many challenges for policies of individual economies as well as challenges to global and regional mechanisms that should provide effective safety nets for countries to maintain financial stability. To maintain economic stability, countries—particularly emerging market economies—need to make use of appropriate policy tools, including monetary and exchange rate policy, reserves accumulation, and, when needed, capital control and macro-prudential measures. In addition, liquidity support mechanisms, whether bilateral, global, or regional can make a crucial difference in times of stress. Bilateral arrangements are by nature political so may not be reliable for many countries. Global (IMF) and East Asian regional arrangements (Chiang Mai Initiative Multilateralization) still do not have effective designs that will make them attractive to countries in the region. Recommendations are put forward on how these facilities can be modified to make them more attractive and effective.

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## I. Introduction

This paper focuses on the maintenance of economic stability given risks and volatilities from volatile capital flows in the context of East Asia. The challenges arising from volatile capital flows are highlighted in Section 2. Section 3 discusses country policies to protect from volatile capital flows, focusing on the need for more flexible exchange rate, providing a monetary anchor through an inflation targeting framework, exchange rate management, and reserves accumulation. Section 4 focuses on bilateral safety nets, Section 5 on global safety nets, and Section 6 focuses on regional safety nets. Section 7 concludes.

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## 2. Challenges from volatile capital flows

The extent of financial globalization and volatilities of short-term capital flows create many challenges for policies of individual economies, as well as challenges to global and regional mechanisms that should provide effective safety nets for countries to maintain financial stability.

Over the past two and one-half decades, East Asian emerging market economies (EMEs) faced many periods of stress or even crisis as a result of volatile capital flows. Large inflows of short-term debt in the first half of 1990s, together with macroeconomic policy mismanagement, led to asset price bubbles, bursting of the bubbles, rapid capital flow reversal, the 1997–98 Asian financial crisis (AFC), and painful crisis resolution measures.

Since then, there have been periods of large and rapid short-term capital inflows (mostly portfolio) coming from advanced economies, driven by the search for higher yields and plenty of liquidity, whether from high leveraging or quantitative easing policies. There have also been periods of large and rapid capital outflows, such as after the closure of Lehman Brothers, or at signs of tapering or reversal from a quantitative easing policy. Both the inflows and outflows pose challenges for macroeconomic policy to maintain economic stability.

In terms of the vulnerabilities of EMEs to financial globalization, it has to be recognized that financial globalization is unavoidable and also irreversible, and that there are many potential benefits. Nevertheless, financial globalization goes hand in hand with greater volatilities and risks, and these volatilities and risks seem to be increasing over time.

EMEs are particularly vulnerable to these volatilities and risks for a number of reasons. First, they are relatively fast-growing economies, so there are many investment opportunities, and capital is more likely to flow in to seek profit compared with flow to other slower growing economies. Second, because of the relatively small size of the capital market, moderate inflows and outflows can have large impacts on prices, increasing profit-making opportunities. Third, there are not so many instruments in EMEs to hedge or protect against volatilities and risks. Fourth, domestic participants in the market are not so sophisticated and knowledgeable. And lastly, the authorities are also generally not as sophisticated and knowledgeable.<sup>1</sup>

Take the experience of the early 1990s. There were huge inflows into EMEs in East Asia, including Thailand, and these were mostly inflows in terms of short-term foreign

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<sup>1</sup> The fact that the currencies of most EMEs are not internationalized may also contribute to greater volatilities; see Park and An (2012).

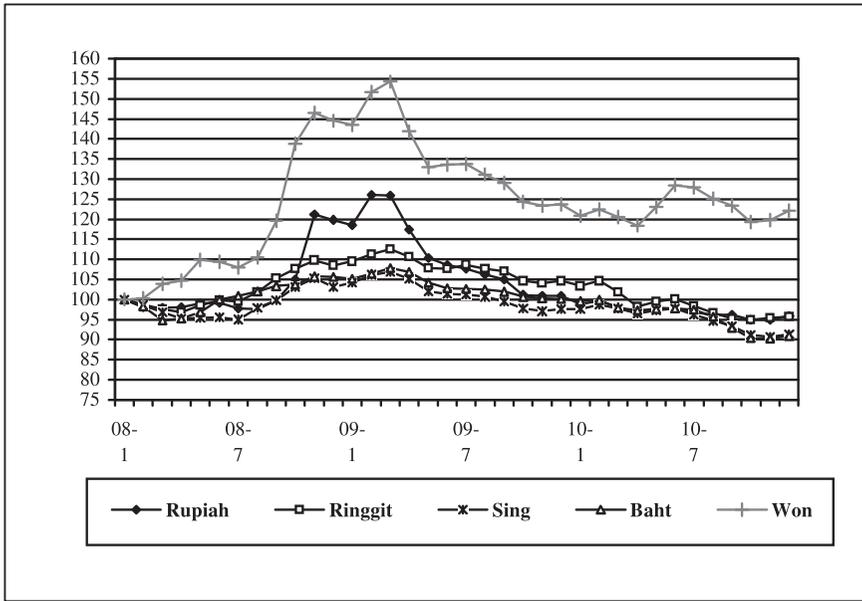
borrowing. At that time, the authorities were looking at the world with a current account paradigm, focused on foreign reserve adequacy in terms of months of imports. As inflows of short-term foreign borrowing increased, so did foreign reserves, and this was perceived as a sign of strength. The fact that reserves needed to cover short-term foreign debt was not recognized at that time, and, by 1996, total short-term foreign debt increased to more than 100 percent of foreign reserves in Thailand, Indonesia, and South Korea. When the bubble burst and capital flows dried up, these countries were left with severe financial crises and recovery took a long time.

After the AFC and with the lessons that were learned, policymakers were much more aware of the risks from volatile capital flows and short-term debts were closely monitored. Pressures from volatile capital flows (both inward and outward) continued, however, and unexpected events, such as the acute U.S. dollar shortages in the global financial markets after the closure of Lehman Brothers, led to almost a crisis situation even for countries that had seemingly adequate foreign reserves, particularly South Korea and, to some extent, Indonesia.

Figure 1 shows the outflow episode after the closure of Lehman Brothers. The top line is the exchange rate index of the Korean won, which evidently depreciated by a large amount. The extent of depreciation was almost similar to what Korea experienced during the AFC. Although Korea had more than US\$ 200 billion in reserves, it had even more contingent short-term foreign exchange liabilities. Basically, the country allowed short-term debt to become almost as large as reserves, but there were also foreign holdings of stocks and bonds, which could be easily converted into cash. This was why Korea was under significant pressure. When the U.S. Federal Reserve (Fed) provided a swap to Korea for US\$ 30 billion, the situation stabilized but did not yet truly turn the currency around. What turned around the currency was that Korea, as with most other East Asian economies, is export-oriented, and when the currency depreciated drastically there was a quick turnaround of the current account. Thus, when the Korean current account turned into a sustained surplus, the currency also strengthened.

The other line showing temporary depreciation is the Indonesian rupiah. Indonesia also had problems because it did not have a lot of reserves and, although it approached the Fed for a swap, it was refused, presumably because it did not tie into U.S. interests at that time. Therefore, Indonesia received assistance from China and Japan. The bottom of the figure shows a number of other East Asian currencies—the Malaysian ringgit, the Singaporean dollar and the Thai baht. As can be seen, these tend to move closely together. These countries do not have a fixed exchange rate among them, but in normal times when they manage the exchange rate, they reference each other, so their currencies tend to move together. Remember that ASEAN has been integrating to what is called the ASEAN Economic community, which was to be effective at the end of 2015. Although

Figure 1. Exchange rate indices (January 2008 = 100)

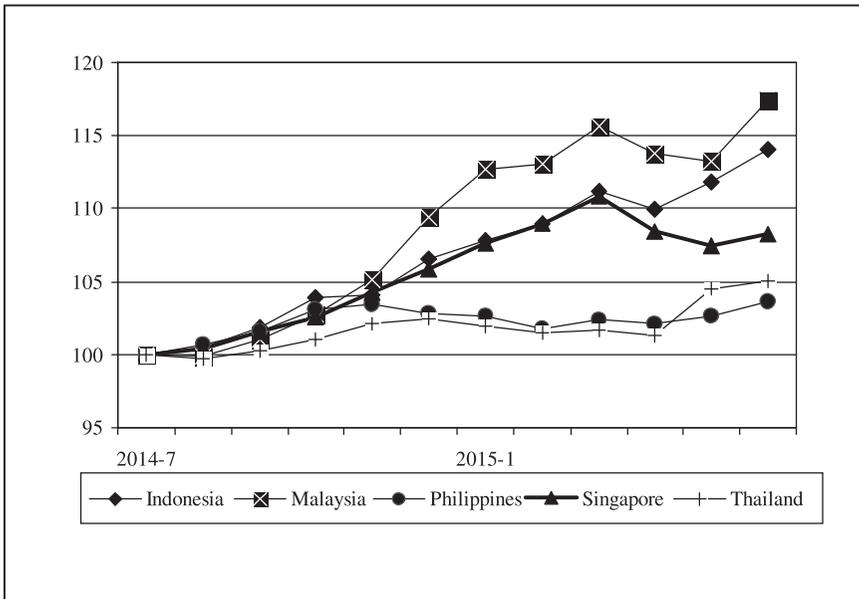


Source: Bank of Thailand.

this is still a far cry from an economic community like Europe, if there are many volatilities among the exchange rates of ASEAN countries, this will create a lot of costs in doing cross-border business among ASEAN countries, and this will go against the goal of integration. Additionally, most of the ASEAN countries are also competitive vis-à-vis each other. Therefore, if their relative exchange rates change significantly, this will create a substantial degree of competitive pressure among the different countries.

More recently, there has been greater divergence of exchange rates among various ASEAN countries, both because of varying reactions to changes in the exchange rates of major global currencies and also because of specific country circumstances. Figure 2 shows the European Central Bank (ECB) quantitative easing impacts on major ASEAN exchange rates. Toward the end of 2014, the ECB announced the Asset-Backed Securities Purchase Program, which started on 21 November 2014. As can be seen in the figure, ASEAN exchange rates diverged significantly starting around December 2014. Because the euro weakened substantially as a result of the ECB measure, some countries managed their exchange rates by moving very quickly to reduce the weight of the U.S. dollar, so that the currencies weakened significantly compared with the dollar. Other currencies, particularly the Thai baht and the Philippine peso, tended to stick more closely to the

Figure 2. ECB quantitative easing impacts on exchange rates (July 2014 = 100)



Source: Bank of Thailand.

U.S. dollar. This created a lot of competitive pressure between these countries because they are competitors. Thailand remained a bit behind the curve, although the Thai baht weakened significantly during the second half of 2015. In the case of Singapore, they may have thought they weakened too much and so they appreciated the Singaporean dollar closer to the level of the Thai baht and the Philippine peso by the middle of 2015. In the cases of Indonesia and Malaysia, however, their currencies have now weakened considerably. As we can see, these relative currency movements can create many problems.

### 3. Country policies to protect from volatile capital flows

The most effective way to protect against the risks arising from volatile capital flows is to have appropriate policies at the country level. In the case of Thailand prior to the 1997 crisis, the macroeconomic policy regime was the classic Mundell (=1963) “impossible trinity”. Macroeconomic policy combination was a fixed exchange rate (to a basket), liberalized capital flows (hoping to make Bangkok a regional financial center), and an attempt at an independent monetary policy (short-term interest rate about 4 percentage points above the U.S. level on average for 5–6 years prior to the crisis). Large short-term capital inflows came into the country (mostly as short-term foreign borrowing),

fueling an economic bubble. As short-term debt increased, reserves also increased, but the need to make sure that reserves could also cover short-term foreign debt was not considered to be important at that time. An even bigger mistake was for the central bank to use up almost all of the foreign reserves to try to defend the value of the currency. This led to the country becoming insolvent in terms of not having enough foreign currencies to meet its obligations. The baht had to be floated and Thailand had to enter an IMF-assisted program.

Protection from volatile capital flows requires a combination of various policies, including a more flexible exchange rate with appropriate management, a monetary policy regime to provide a monetary anchor, self protection from reserves accumulation, and, when needed, capital control and macro-prudential measures. These are discussed in the following sections.

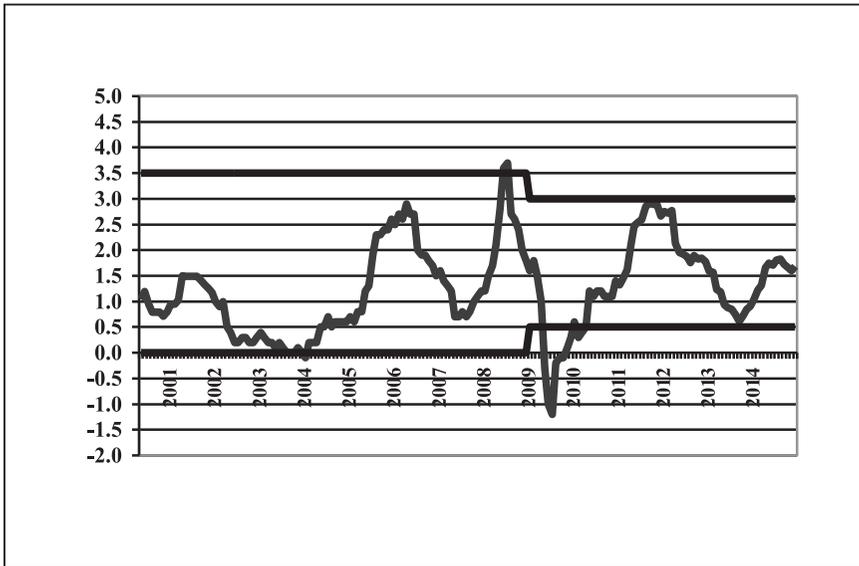
### **3.1 More flexible exchange rate**

Thailand had pursued a fixed exchange rate regime successfully ever since the 1950s, and had been stable macro-economically for a long time. With the emergence of financial globalization and volatile capital flows and with the experience of the 1997 crisis, however, it was clear that a more flexible exchange rate regime would be better suited for a country like Thailand. From a number of episodes when the baht needed to be devalued during the fixed exchange rate regime (such as the first part of the 1980s and just prior to the AFC), it could be seen that politicians tended to resist devaluation, viewing it as a sign of weakness or failure. When devaluations were carried out, this usually resulted in political fallout, and in the case of 1997, fear of devaluation or depreciation through a float took the country to insolvency.

For an export-oriented open economy like Thailand, currency depreciation can bring about very quick adjustment of an external imbalance. Even though the country had only US\$ 2.8 billion in net foreign reserves in July 1997 with more than US\$ 40 billion in outstanding short-term foreign debt, and therefore had to enter an IMF-supervised program and float the baht, the turnaround in the foreign reserves situation was much faster than anyone anticipated. The depreciation of the baht, and the recession resulting from the crisis, led to sizeable current account surpluses. Within two years of entering the IMF program, which came with harsh conditionality, Thailand no longer needed additional drawing from the IMF package, and therefore exited the IMF conditionality. The experience of Korea during the global financial crisis (GFC), as pointed out earlier, shows the important role of currency depreciation in external balance adjustment.

### **3.2 Inflation targeting framework**

With a floating (though managed) currency, some kind of monetary anchor was needed. The first monetary policy committee was set up back in 2000–01 and an inflation targeting

**Figure 3. Thailand monetary policy ranges and core inflation (%)**

Source: Bank of Thailand.

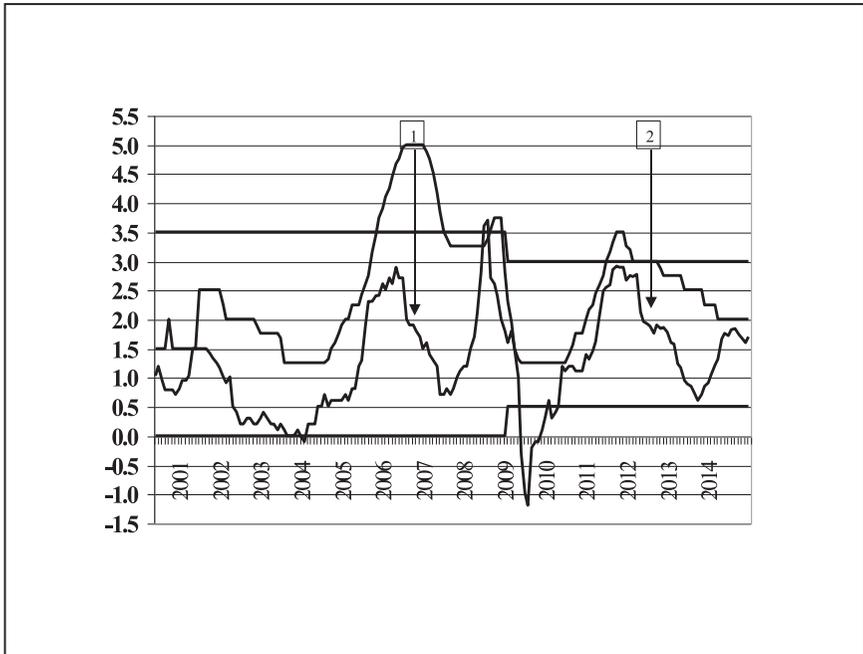
framework for Thailand was set up.<sup>2</sup> The target was on core inflation, excluding raw food and energy prices. It was important to ensure that the new framework gained credibility from the financial market, so it was important that the actual core inflation did not depart from the target range after only a few months. A wide target range was therefore deliberately set, between 0 percent and 3.5 percent, for the core inflation. Over time, with more confidence, the range was slightly narrowed to 0.5–3.0 percent starting in 2009.

Figure 3 shows the inflation target range and outcome from the start of inflation targeting (May 2000) to the end of 2014. The top and bottom lines show the ceiling and floor for core inflation, respectively, and the middle curve shows actual core inflation. We can see that in almost 15 years of inflation-targeting in Thailand, the core inflation rate went outside the range for only a few months. It must certainly be one of the best performers in terms of inflation targeting policy in the world.<sup>3</sup>

<sup>2</sup> This was under the initiative of M.R. Chatumongol Sonakul, the Governor of the Bank of Thailand at the time. The author was appointed as a member of this committee.

<sup>3</sup> Unfortunately, the Bank of Thailand changed the inflation target from core to headline inflation starting in January 2015, with a target of 2.5 percent  $\pm$  1.5 percent. The timing was bad as energy and commodity prices fell substantially in 2015, and headline inflation has been negative for every month, averaging  $-0.9$  percent for the whole year. At the same time, the policy rate has been kept

Figure 4. Core inflation, target range, and policy rate for Thailand (%)



Source: Bank of Thailand.

This did not mean that there were no problems with the inflation targeting framework, however. There were often periods of policy conflicts, such as between the Bank of Thailand and the Government or the Ministry of Finance, and these conflicts were related to policy management under volatile capital flows, particularly during periods of large and rapid inflows.

Figure 4 superimposes the policy rate (the line that rises to 5 percent toward the end of 2006) onto Figure 3 and shows two episodes of severe policy conflicts. The first episode was in 2006. During that time there were huge capital inflows into Thailand and there was a lot of conflict between the political authorities and the Bank of Thailand on how to conduct monetary policy, particularly on exchange rate policy. The inflows came rapidly and this led to a quick appreciation of the baht. Because Thailand basically depended on exports as the only engine of growth at that time, this affected the real sector. There were

at 1.5 percent ever since April 2015, so it is not quite clear how seriously the authorities take the inflation target.

many debates on the fact that perhaps the Bank of Thailand should have reduced interest rates much more quickly.

Another part of monetary policy was intervention in the foreign exchange market, and although the Bank of Thailand was intervening, it was not enough to stabilize the currency. Money was coming in, returns were higher than in advanced economies, the exchange rate was on a strengthening trend, and this in turn attracted even more inflows. That was a big problem. Therefore, in December 2006 Thailand introduced the so-called capital control with 30 percent unremunerated reserve requirement, copying what Chile implemented in the early 1990s. This policy led to a 15 percent crash in the stock market the next day, however, and triggered a reversal of part of the policy, exempting inflows into the stock market. The problem of exchange rate management continued into 2007 and beyond and has been a continuing challenge.

The second episode, which started around the second half of 2012, was almost exactly the same. The policy rate seemed to be declining too slowly and the exchange rate was appreciating—and core inflation was declining quite quickly. The Central Bank's reaction seemed to be a bit too slow and reflected the generally conservative leaning of central bankers throughout the world. At that time, there were great conflicts between the Ministry of Finance and the Central Bank. The Minister of Finance wanted to remove the governor of the Central Bank, and said so publicly to the media many times. He was unable to do so, however, thanks to the Bank of Thailand Act of 2008, which provided protection to the governor from being dismissed by the Government for so-called “appropriate reasons,” which was the case in earlier Bank of Thailand Acts.<sup>4</sup>

### 3.3 Exchange rate management

To deal with volatile capital flows, countries can use self-protection policies. When there are a lot of capital inflows, most of them are basically short term. Thus, what the authorities should consider is that these inflows, no matter their cause, will eventually turn into outflows, therefore countries must protect themselves from that reversal, and there have been several episodes of outflow reversals.

One thing that can be done when there are a lot of inflows is to buy them up, meaning exchange rate intervention, which will keep exchange rates relatively stable in terms of short-term inflows and outflows. This can be costly, however. If the Central Bank buys a great deal of these foreign currencies and carries out sterilization, and if the domestic interest rate is much higher than U.S. rates, for example, the country will lose a large amount of money, which is what happened in Thailand and in many other EMEs.

<sup>4</sup> The Bank of Thailand Act of 2008 went through Parliament during the author's term as Thailand's Minister of Finance.

Therefore, when there are a lot of inflows this creates a big challenge for exchange rate management because of the cost of sterilization, and in many countries these costs translate into losses for the Central Bank—these also have fiscal implications, which can then lead to policy conflicts. In Thailand, the Ministry of Finance wanted the interest rate to be lowered more quickly, because the cost of sterilization would be lower and therefore the impact on the balance sheet of the Central Bank would be lower, the impact on the fiscal side would then be lower, and so on.

Other macro-prudential measures can also be quite useful. China uses reserve requirements quite often as a tool of monetary policy. Instead of sterilizing by issuing Central Bank bonds, they simply increase reserve requirements, which means that the money that is coming into the system must be kept by the banks, thus the banks end up absorbing some of the costs of sterilization.<sup>5</sup> This can be part of the tool kit. There are macro-prudential measures that can be used in addition to interest rate measures, although there may be some constraints in different countries. This depends on whether the monetary policy side is integrated with the supervision side. In Thailand, for example, although monetary policy and supervision are both within the Bank of Thailand, they are designed to be under separate policy committees. Thus, they are not truly fully integrated. When one committee is deciding on monetary policy, it basically focuses on interest rate rather than perhaps trying to use reserve requirements. Other countries may have completely different and separate institutions handling each type of policy, in which case it may be even more difficult. Of course, capital control measures are another part of the tool kit, although they need to be designed carefully, as this was not successful in the Thai case.<sup>6</sup>

### 3.4 Reserves accumulation

The AFC and the 2008–09 GFC showed that unexpected capital outflows can occur rapidly, possibly through domestic policy mistakes or from global shocks. Countries need to make sure that such a situation remains a temporary one and does not turn into a full-blown financial crisis such as the situation in 1997–98. Having sufficient reserves to ride through the storm is obviously important. If it is known or suspected that a country does not have enough reserves, whether the country's own or through its bilateral, regional, or global arrangements, then there will be a rush to exit to make sure that foreign currencies will still be available and also to race against the inevitable rapid and large depreciation of the local currency.

There are various types of potential short-term foreign currency liabilities that foreign reserves should back up. Over the past few years the IMF has been addressing the issue

5 Of course, the banks will probably pass these on to borrowers and depositors.

6 There have been mixed experience on the effectiveness of capital controls in general, see, e.g. Gochoco-Bautista, Jongwanich, and Lee (2012). For various perspectives on capital controls, see Kawai and Lamberte (2010).

of the adequacy of foreign reserves (IMF 2011, 2013). They have attempted to develop new guidelines for assessing the adequacy of foreign reserves. A metric is developed based on variables that might be behind drains on foreign reserves. Five variables have been highlighted: short-term debt (STD); other portfolio liabilities (OPL), such as foreign holdings of stocks and bonds; broad money (M2), for countries with limited controls on capital outflows from residents; and exports (X), in case there is an export shock leading to reduced foreign exchange inflows from exports. Based on data from previous capital outflow episodes from various countries, a metric has been suggested for EMEs with fixed exchange rate and floating exchange rate regimes as follows:<sup>7</sup>

$$\text{Fixed: } 0.3 \times \text{STD} + 0.2 \times \text{OPL} + 0.1 \times \text{M2} + 0.1 \times \text{X}$$

$$\text{Float: } 0.3 \times \text{STD} + 0.15 \times \text{OPL} + 0.05 \times \text{M2} + 0.05 \times \text{X}$$

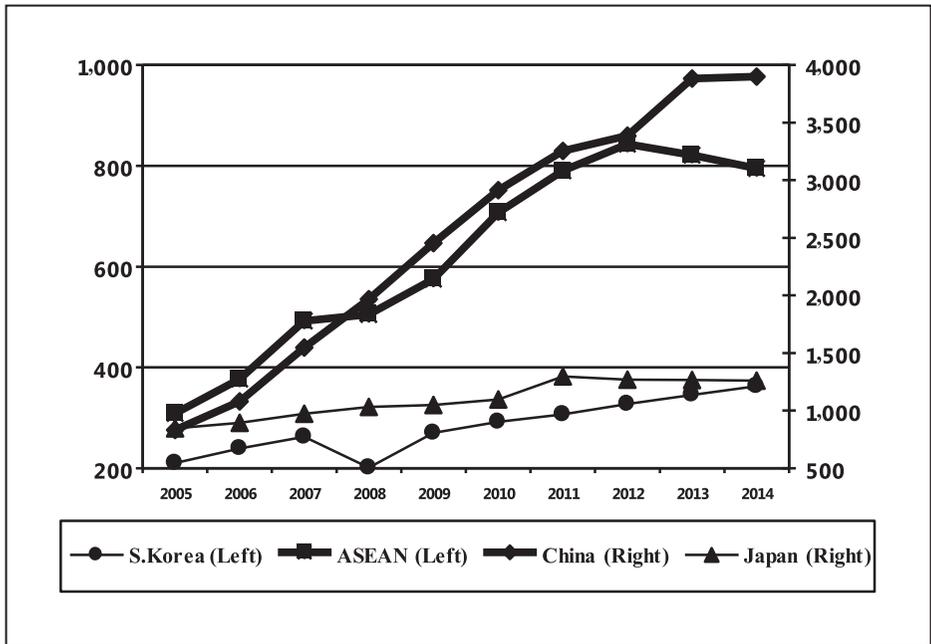
It is then suggested that foreign reserves should be in the range of 100 percent to 150 percent of the respective metric to be able to deal adequately with potential outflow episodes. The report certainly makes advances to the analysis of what might be an adequate level of foreign reserves. Nonetheless, it seemed clear from the IMF Executive Board's discussions on this issue, as well as from views from the IMF's Independent Evaluation Office (IEO 2012), that these formulas should not be taken rigidly as country circumstances, risk aversions, and priorities can differ greatly.

For a country like Thailand that has been through a foreign exchange crisis and the pain of having to implement harsh IMF conditionality, it would not be surprising that a much more conservative approach to an adequate level of reserves would be adopted. And indeed, based on this metric, it turns out that Thailand's foreign reserve was around 250 percent of the proposed metric in 2012, and Thailand ranked among the very top countries in terms of the ratio of reserves to the suggested metric.

In the Thai context, M2 is probably not so important, as there are still strict controls on capital outflows by residents that are not backed up by underlying current account transactions. Exports, particularly manufactured exports, also tend to be related to imports as a lot of parts and components are imported for the assembly of exports. So when exports declined, such as during the GFC following the closure of Lehman Brothers, imports also tended to decline. The most important potential foreign exchange short-term liabilities for a country like Thailand, therefore, are the short-term foreign debt and other portfolio liabilities. And based on past crises and rapid capital outflow episodes, it would be

7 The 2013 study increased the weights for OPL by 5 percent compared with the 2011 study. Other weights remained unchanged from 2011. It should also be noted that the IMF papers also discussed the cases of advanced economies as well as less developed economies with low access to global financial markets.

Figure 5. Foreign exchange reserves (billion US\$)



Source: IBRD, World Development Indicators.

Note: ASEAN excludes data from Myanmar.

safest for reserves to be able to easily cover all of these potential liabilities; more specifically, reserves should be well above the total of short-term foreign debt and other foreign portfolio liabilities.

It should also be noted that having a certain amount of reserves does not mean that all of the reserves can be quickly drawn upon. Most of the reserves are normally held in U.S. treasuries or other hard currency government bonds. If a sizeable amount of the reserve holdings needs to be liquidated quickly, this may result in bond market disruptions and also possible capital loss. Therefore liquidity of the foreign currency assets is an issue that also needs to be borne in mind.

East Asian economies in general have been accumulating vast amounts of reserves. Figure 5 shows reserves from China, Japan, and Korea and ASEAN countries up to the end of 2014. The scale for Japan and China is on the right-hand side, and the scale for ASEAN and South Korea is on the left-hand side. By the end of 2014, China's reserves had reached almost US\$ 4 trillion, though this has declined substantially (by almost US\$ 700 billion) in 2015 as the country tried to deal with large capital outflows. Actually,

**Table 1. Ratio of foreign reserves to GDP (%)**

	2005	2008	2011	2014
China	36.6	43.1	43.4	37.6
Japan	18.5	21.3	21.9	27.4
South Korea	23.4	22.4	34.2	40.4
Brunei Darussalam	5.2	5.2	15.5	21.1
Cambodia	18.4	25.5	31.7	36.6
Indonesia	12.1	10.1	12.3	12.6
Lao PDR	11.3	16.1	14.2	10.4
Malaysia	49.1	39.9	46.2	35.5
Myanmar	n.a.	n.a.	9.8 <sup>a</sup>	n.a.
Philippines	17.9	21.5	33.5	28.0
Singapore	92.7	92.4	88.5	85.0
Thailand	31.7	43.3	59.7	48.2
Vietnam	15.7	24.1	10.0	18.4

*Source:* Calculated from IBRD, World Development Indicators, and ADB, Key Indicators for Asia and the Pacific.

*Note:* a. 2012.

given the large outflows, the size of China's reserves does not seem excessive anymore and is crucial to its ability to maintain stability under volatile capital flows.

For ASEAN, total reserves were around US\$ 800 billion at the end of 2014. Japan has remained at around US\$ 1–1.25 trillion for a number of years because Japan has not implemented much exchange rate intervention for many years. Korea is a country that was quite affected by the GFC and in 2008 lost significant reserves because of large outflows, which led to liquidity problems. They learned their lesson, however, and their reserves have almost doubled since the GFC. Korea is now much better protected from outflow episodes.

Table 1 shows the reserves as ratios to GDP. In the case of China, reserves were around 40 percent of GDP (of course, it is less now given the large outflows in 2015). Japan was around 27 percent, Korea around 40 percent of GDP, and in the case of ASEAN countries, for a country like Thailand, which went through the Asian financial crisis and has attached importance to accumulating reserves, it was almost at 50 percent of GDP. The smaller countries, the newer ASEAN member countries, have accumulated much less. And they are at greater risk because these economies have a high degree of dollarization and many of their domestic contracts are done in U.S. dollars. This means that they need to have sufficient reserves to also cover for domestic contracts that are denominated in dollars. Also because of a high degree of dollarization, when the U.S. dollar strengthens, de facto their currencies will also be strengthening and this will affect their competitiveness. This should be of some concern.

#### 4. Bilateral safety nets

The next level of safety nets for protection from volatile capital flows is the bilateral safety net. During the severe global US\$ liquidity shortage after the closure of Lehman Brothers,

bilateral safety nets helped to stabilize foreign exchange markets. As indicated earlier, South Korea was affected quite severely and Indonesia was also affected, though less so. The Chiang Mai Initiative (CMI), a series of bilateral swaps among the five ASEAN founding member countries and Japan, China, and South Korea (the Plus 3 countries), was an option but played no role, presumably because of the IMF link and the IMF stigma (the IMF unlinked portion was only 20 percent at that time).

To ease the US\$ liquidity shortages, Korea received a swap with the Fed for US\$ 30 billion. This, together with a turnaround in the current account, helped to reverse the currency depreciation. Indonesia also requested a swap with the Fed but was refused. Instead Indonesia obtained a swap with China and expanded the swap with Japan under the CMI so that the portion unlinked to the IMF would be larger (again emphasizing avoidance of the IMF link).

Possibly because the bilateral swaps seemed to be effective during the GFC, countries have been moving to implement more bilateral swaps with each other as part of their defensive mechanism against possible foreign exchange liquidity shortages.

As an example, in 2011 Korea expanded its US\$ 13 billion bilateral swap with Japan under the CMI to a total of about US\$ 70 billion; a \$30 billion won–yen swap, a \$30 billion won–US\$ swap, and a \$10 billion swap under the CMI. Korea also has a RMB 360 billion (about US\$ 57 billion) with China, which may possibly be convertible to US\$ in the future.

Indonesia now has a US\$ 22.76 billion bilateral swap agreement with Japan, a yuan 100 billion (about US\$ 16 billion) rupiah–RMB swap with China, and a US\$ 10 billion equivalent won–rupiah swap with the Republic of Korea. The Philippines also recently doubled its swap with Japan from the CMI level to US\$ 12 billion.

In East Asia there may also be competition for countries to do bilateral swaps because China and Japan have huge reserves and there can be competition between China and Japan to do bilateral swaps with countries in the region. These bilateral swaps are obviously political. For example, what may explain why the Fed implemented a swap with Korea but not with Indonesia was that Wall Street has much more tied up in Korea than in Indonesia and, if a swap was not completed, the exchange rate of Korea would depreciate even more, translating into foreign investors receiving very little back for their investment. On the other hand, the United States do not have that much tied up in Indonesia.

The political nature of these bilateral swaps was clearly demonstrated by the reduction and eventual lapse (in February 2015) of the swap between Japan and Korea following territorial disputes between the two countries. It is also very unlikely that the Philippines can or wants to increase its swap with China given current political tensions. Bilateral

swaps should therefore not be seen as the best approach to provide safety nets for volatile capital flows. Unless the political relations are stable and can be expected to remain stable for a long time, relying on the bilateral swaps is risky.

## 5. Global safety nets

Given that a major challenge for many EMEs has to do with capital flow volatilities, global mechanisms that can provide liquidity when countries need it without falling into a crisis are very important. Thus, the IMF has been developing the so-called Flexible Credit Line (FCL) and the Precautionary Liquidity Line (PLL). Countries with very strong fundamentals (as judged by the IMF) may try to qualify for the FCL, and those with strong fundamentals but with some policy vulnerabilities may qualify for the PLL, which will have some ex post conditionality.

Unfortunately, because of the way that they are designed, very few countries have been interested in using them. As of March 2016, Poland, Mexico, and Colombia have applied and qualified for the FCL although no country has drawn on it; it is just a backup. And in the case of the PLL, only Morocco and the Republic of Macedonia have qualified.

Such a small demand from the entire IMF membership of around 190 economies is clearly a problem and the IMF should be thinking about how to redesign these mechanisms to make them more usable.

In a January 2014 review of the FCL, PLL, and another small and unused facility, the Rapid Financing Instrument, IMF staff admitted that IMF stigma is still a major issue for many EMEs, especially in East Asia and Latin America. The lack of demand for these facilities, “[t]o a large degree, this reflects the degree of political stigma related to Fund engagement that prevents some members from seeking preemptive Fund financial support” (IMF 2014, 5).

Also, “some EMs—feeling vulnerable to heightened capital flow volatility but unwilling to request Fund arrangements—are seeking to expand regional financing arrangements (RFAs) and networks of bilateral swap arrangements (BSAs)” (IMF 2014, 5).

In East Asia, IMF stigma is easy to understand. East Asian economies that went through IMF conditionality during the AFC are unlikely to risk a link to IMF programs unless absolutely unavoidable. There is also the risk that countries may apply but not qualify for FCL or PLL, which will be a severe loss of face and may have market implications, so countries are likely to avoid taking the IMF exam, which is precisely what one finds.

A rethinking of how to design the IMF (global) facilities is necessary. Criteria for access to these facilities should be objective, transparent, and automatic.

Instead of having countries applying and then being examined by the IMF and its Board, in which some discretions and politics are unavoidable, it would be better to establish clear objectively measurable criteria, which are publicly available, for access to various levels and lengths of liquidity support. Countries would qualify automatically, and know that they qualify, for these liquidity supports based on these criteria without having to apply.

For example, if a country comes to the IMF and requests an amount equal to 1 percent of its reserves for three months, the approval should be automatic and with no conditionality, unless data show the presence of huge short-term debt and current account deficits and a high probability of large capital outflows that will run down almost all of the reserves in a short period of time. Even if the amount were 10–15 percent of the country's reserve, the approval should also be almost automatic. Actually, if a facility like this were available during the GFC, Korea could have had access to about US\$ 20–30 billion in liquidity support without having to arrange a swap with the Fed.

A formula can be developed in an objective and transparent way so that countries will know how much liquidity support they can access from the IMF under various conditions. Countries should be able to look at the IMF facility as an additional tool that they can draw upon, of course at a cost, in their reserve management. There should be no need for an examination but rather the data should determine what the country is allowed to access. This kind of facility is necessary considering that the volatilities of capital flows are integral parts of the current and future global financial system.

## 6. Regional safety nets

Regional safety nets exist in various parts of the world. In East Asia there is the Chiang Mai Initiative Multilateralization (CMIM), where the latest version was ratified by all 13 countries as well as Hong Kong in July 2014. The total is US\$ 240 billion of so-called self-managed reserve pooling. This is not real money, however, as countries do not contribute any money to the pool. Only when there is a lending program will countries have to contribute to the program, based on their percentage of contributions to the US\$ 240 billion pool.<sup>8</sup> Real money is spent to support the ASEAN+3 Macroeconomic Research Office (AMRO), however, which is the surveillance unit for CMIM based in Singapore. AMRO now has the status of an international organization (as of 9 February 2016).<sup>9</sup>

8 For details of country contributions, maximum swap amounts, and voting power see [www.amro-asia.org/the-relationship-between-amro-and-cmim/CMIM%20Contributions](http://www.amro-asia.org/the-relationship-between-amro-and-cmim/CMIM%20Contributions).

9 For discussions of financial cooperation in East Asia and CMIM, see Sussangkarn and Vichyanond (2006) and Sussangkarn (2011).

Unfortunately, at the moment no country really wants to use the CMIM because it is still linked to the IMF. Only 30 percent of the quota is unlinked. Thus it is not really providing a lot of value-added. There is also a crisis prevention facility, called the CMIM Precautionary Line (CMIM-PL), which works in a similar way as the PLL of the IMF. Progress on CMIM has been slow. An agreement was reached in the year 2000 to set up the so-called CMI, which was a series of bilateral agreements among East Asian countries. Fifteen years have now passed and East Asia still does not have an effective liquidity support mechanism that member countries want to use.

Developing the CMIM-PL to be an effective crisis prevention facility and provide value-added to the global mechanism should be given high priority. As in the discussion of the IMF facilities, qualification criteria for CMIM-PL should be objective, transparent, and automatic. It should also provide value-added to current IMF facilities (and any future facilities that may emerge).

In principle, regional facilities should have easier access criteria than global facilities. This is because contagions within the region (particularly for East Asia) tend to be larger than contagions from outside the region, so regional members should be willing to take more risks (in terms of default risks) from providing liquidity support to regional members. Also, the sense of ownership for the regional facility from regional members tends to be much stronger than their sense of ownership of the global facility, so the sense of obligation to avoid default in repayment should be high.

On this, one can look at the experience of another regional fund that has been operating for almost 35 years. The Latin American Reserve Fund, or Fondo Latinoamericano de Reservas (FLAR), started in 1978. It now has eight member countries: Bolivia, Colombia, Costa Rica, Ecuador, Paraguay, Peru, Uruguay, and Venezuela. The size is relatively small, with paid-in capital of about US\$ 3.3 billion (but this is real money, rather than the self-managed reserve pooling of CMIM).

FLAR has no operational link to the IMF. Member countries frequently borrow from it, totaling about US\$ 11 billion throughout its history. There is no conditionality, but no country has ever defaulted on its loans from FLAR, even in cases where the country has to suspend or default on its public external debt service. This shows that members are given the benefit of the doubt, and the importance members attach to ownership of the fund.

CMIM can draw from this experience. When members request drawing from the CMIM-PL (IMF-unlinked part), the approval should be almost automatic. The only exceptions are when (1) it is clear that the member is or will shortly be insolvent in terms of foreign currencies, or (2) the likelihood of the member being able to repay the swap amount (with interest) within a reasonable period of time is low. To cover such cases, objective and

transparent criteria can be developed to limit the amount of drawing that a country can access automatically.

Note, however, that even when Thailand became highly insolvent in mid 1997, with remaining net foreign reserves of only about US\$ 2.8 billion compared with short-term foreign debt totaling more than US\$ 40 billion, the country was able to quickly accumulate foreign reserves through currency depreciation so that within two years, no further drawing was needed from the IMF, and full repayment was made in 2003. Therefore, CMIM-PL should lean towards giving members the benefit of the doubt.

The amount of drawing available to members without linking to the IMF needs to be increased as sufficient size and quick disbursement are important to generate market credibility. For drawing of relatively short maturities (say, 6 or 9 months) the IMF link should be removed. If problems persist after a specified period, the likelihood that the problem is not a temporary one, but one of solvency, becomes much higher, with a need for fundamental changes in policy, and a crisis resolution mechanism is called for. In such a case, the link to the IMF can be invoked.

The CMIM crisis prevention facility should be similar to FLAR in providing temporary liquidity support with no links to the IMF. But crisis resolution would be carried out with the IMF similar to what has been happening in Europe over the past few years. Although there have been contacts between AMRO and FLAR, the ASEAN+3 Finance and Central Bank Deputies need to have much more exposures to FLAR. In spite of the distances involved, regular consultative meetings between the deputies of countries involved in CMIM and FLAR as well as officials from AMRO and FLAR should be held. This could possibly be organized on the sideline of the IMF and World Bank Annual Meetings.

## 7. Conclusions

Financial globalization has increased rapidly over the past 25 years and has been accompanied by phases of volatile capital flows. EMEs are particularly susceptible to the risks from these volatile flows, leading to periods of stress or financial crisis throughout almost all regions of the world. To maintain economic stability, EMEs need to make use of appropriate policy tools, including monetary and exchange rate policy, reserves accumulation, and when needed, capital control and macro-prudential measures. Basically, EMEs should use all necessary measures that can help to ride through the storm and avoid crises. In addition, liquidity support mechanisms, whether bilateral, global, or regional, can make a crucial difference in times of stress. Bilateral arrangements are by nature political so may not be reliable for many countries. Global (IMF) and East Asian regional arrangements (CMIM) still do not have effective designs that will make them attractive to

countries in the region. Recommendations have been put forward in this paper on how these facilities can be modified to make them more attractive and effective.

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