ABSTRACT

Albeit the economic and political cooperation among ASEAN that has a long history since its inception in 1967. The concept of monetary union in ASEAN has evolved tremendously after the Asian Financial Crisis (AFC) of 1997-98. After AFC, ASEAN countries have taken many governmental level efforts in East Asia to develop different institutions to safeguard against the future crises. This was done first with the involvement of other regional countries namely China, Japan and Korea in the earlier phase (i.e., ASEAN+3), and then by involving Australia, India and New Zealand in the later stage (i.e., ASEAN+3+3). Accordingly, CMI, CMIM, AMRO, and ABF type of institutions were established in the region to help the member countries to develop sound macroeconomic policies with the objective to achieve political and economic policy convergence (Kwack, 2004). Likewise, the ASEAN+3+3 have signed many free trade agreements (FTAs) to expand and deepen the liberalization and integration efforts in the region. The ASEAN+3 countries (APTCs) have developed the Asian bond markets to boost investment. Additionally, the ASEAN has declared the region an ASEAN economic community (AEC) with the single market which is a significant milestone (Plummer, 2006). It resulted in the increased labor mobility, trade-openness and intraregional trade intensity among these countries (Huang and Guo, 2006). Now the region is in a position to reap the economic benefits of geographical proximity through trade, financial and exchange rate coordination (Wang, 2004; Petri, 2006) and it is high time for the introduction of common currency and monetary union in the region.

This study investigates the monetary credibility of proposed Asian Monetary Union (AMU) in two distinct blocs of ASEAN+3 and ASEAN+3+3 member countries. The study developed the weighted averages of two Asian monetary units namely Asian-monetary-unit (AMUt) and Asian-monetary-unit-wide (AMUW) for both blocs separately. The time-varying capital asset pricing model (CAPM) which is estimated with Kalman filter algorithm (KFA) has been utilized to measure monetary credibility indexes (MCIs). The CAPM used a short-term interest rate of each country along with the two weighted averages as market rate and interest rate of three potential anchor economies as a risk-free rate (namely China, Japan and US). In total, the study developed 83 MCIs. The study examined the two discrete regime shifts in monetary credibility indexes, i.e., low and high with univariate Markov regime switching (MRS) model. The determinants of MCIs are captured with different macroeconomic fundamentals namely GDP growth rate, inflation, unemployment, real exchange rate and trade openness, which are estimated with multivariate MRS model. Finally, the study used additional multivariate MRS model to examine how the macroeconomic fundamentals influence the time-varying transition probabilities (TVTPs). The study also explored the expected duration of each regime with transition probabilities.

The results revealed that high credibility (CAPM beta < 1) is present in most of the countries against China, Japan and US. The credibility of Japan comes out to be high against China whereas Chinese credibility against Japan comes out to low. Korea's credibility shows high volatility against China than against Japan. Among ASEAN5 all enjoyed high credibility against China, Japan, and the US except Indonesia. The idiosyncratic monetary policy divergence (first difference of MCIs) of ASEAN5 are almost zero against Japan than against China. The idiosyncratic divergence of China and Korea against Japan are low, but the divergence of Japan and Korea against China are high. The divergence of Australia, India and New Zealand are established high against China than against Japan and US. The idiosyncratic divergence of both blocs are lowest against the US. The results of the static univariate MRS

model suggest that the high state is not much persistent for all APTCs against China vis-à-vis Japan and US. In multivariate of MRS models, the macro-fundamentals influenced both the MCIs and TVTPs asymmetrically.

In the first multivariate of MRS models, the impact of macro-fundamentals on MCIs showed that the movements of high state smooth transition probabilities of Japan and US have few switching vis-à-vis China in both blocs. The GDP growth rate is significant for most countries against China and US in the high regime. The four out of ASEAN5 nations along with +3+3 also supported them. Inflation association of these countries seems to be more in the high regime against the US, followed by China. Unemployment is found to be most significant in high credibility against the US (followed by China) for four out of ASEAN5 countries along with China, Korea, and Australia. The real exchange rate found to be significant for all ASEAN5 nations against all three anchors. However, significant exchange rate association of most countries is found against China and Japan. In addition to it, the significant trade openness association of most countries (almost same in numbers) is found in high credibility regime against three anchors which indicates that these countries have strong trade links with the anchor countries.

In the second multivariate of MRS models, the impact of macro-fundamentals on TVTPs found to be significant mostly for ASEAN5 and +3+3 countries. The TVTPs show decay at, or close to, the time of the financial crises. The estimates revealed that macro-fundamentals are mostly a significant driving factor of TVTPs between the two credibility regimes instead of influencing on the level of credibility. The study found that most influences came from switching between the credibility regimes for trade openness (against the US and China), followed by exchange rate (against the US and Japan), inflation (against the US and China) and GDP (against the US and China).

Thus overall results revealed that the US is the unequivocal choice of the anchor (external); though, the internal anchor's findings are not much clear. However, the choice of external anchor would not be acceptable for China and Japan more due to political reasons than economic. We, therefore, suggest that both China and Japan have to work together as a core group of countries (in a bipolar system) like France and Germany in Europe (Weber, 1991; Sakakibara, 2003; Heungchong, 2012) to systematically smooth the path toward the formation of a monetary union.

To sum up, the empirics suggest that the credibility of ASEAN+3 and ASEAN+3+3 countries depends not only on the monetary and commercial/trade policies but also on different macro-fundamentals. Moreover, macro-fundamentals not only create an impact on the level of credibility but also cause the probability of switching between states. The empirical results indicate the influence of macroeconomic variables on the monetary credibility and TVTPs, hence provides the strong justification for a monetary unification. The ASEAN+3+3 supported this issue. The evidence strongly supports a subgroup currency or monetary union among ASEAN5+3 (as suggested by Yuen, 2001; Zhang et al., 2004; Bacha, 2008; Sun and Simons, 2011; Lee and Koh, 2012) at the beginning and later at large level of ASEAN+3+3. The formulation of monetary union will further boost the economic, trade and financial integration among EACs, since "a monetary union is a self-validating process" (Wang, 2004).