

# Regional Currency or Regional Trade Policy? An East Asian Perspective of 21<sup>st</sup> Century Growth

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**Abstract:** Being inspired by initial Euro-success, renowned economist Robert Mundell was overoptimistic about adoption of a large currency area in Asia; however, empirical literature on East Asian regional currency is yet inconclusive. Advocates of the optimum currency area (OCA) theory identifies trade enhancement as a major benefit of regional currency adoption. East Asia, however, enjoys high trade enhancement for decades through their ongoing regional integration process in spite of long-practiced controversial individual currency arrangements. As such, a well-managed regional trade policy seems more appropriate for East Asian trade and economic growth. Existing literature consistently ignores the importance of East Asian regional ‘trade policy’ integration and limit the focus to regional ‘trade’ integration motivated by the OCA literature.

**Keywords:** East Asia, Regional Trade and Development, Regional Currency, Regional Trade Policy, Economic Integration, OCA Theory, EMU, ASEAN, Currency union, FTA

JEL Classifications: F13, F15, F41, F42

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## Introduction

Regional currency management policy had been highly focused in East Asia following the 1997-98 Asian financial crisis and a fast recovery afterward. The issue was considered particularly important for achieving post-crisis regional trade and economic growth. In last one decade, the region substantially improved their regional trade, investment and intra-regional production network; however, establishment of regional currency management policy in East Asia remains under doubt. Moreover, Sato et al (2016) claim that negative effect of exchange rate volatility in Asian trade is industry-specific (only for some machinery industry) and cannot be generalized. Thus, importance of regional currency management in East Asia becomes questionable over time. Instead, recent progress in trade and regional integration brings forward regional trade management as an important issue for future growth in East Asian. The members are aggressively developing bilateral and multilateral trade arrangements (for example, AFTA, TPP) within and outside the region.<sup>1</sup> Without having a consolidated regional trade policy, long-term consequences of these ‘noodle-bowled’ trade arrangements would be trade distortion and enhanced intra-regional competition. Existing academic literature, however, consistently ignores the importance of East Asian regional trade policy and limits the focus in highlighting regional currency management policy as an effective tool for East Asian trade and economic growth.

Practice of misaligned fixed exchange rate regime was identified as a major reason for the Asian crisis in 1997-97. In response, the post-crisis trend in East Asia had been to move towards the flexible exchange rate system. Performance of the flexible exchange rate regime as a shock absorber had been satisfactory in the immediate post-crisis situation, though increasing volatility in the foreign exchange market raised questions about its long-run success (Madhur, 2002). Moreover, the free-floating system kept East Asian countries away from retaining their monetary autonomy (Lee, Shin, and Park, 2004). In response, alternative currency management policies including the concept of Asian Currency Unit (ACU) were brought forward as a potential goal of the East Asian economic integration process. In particular, relying on optimum currency area (OCA) theory and being inspired

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<sup>1</sup> AFTA is ASEAN Free Trade Agreement, TPP is Trans-Pacific Partnership

by successful implementation of Euro, leading economists including the Nobel laureate Robert Mundell became optimistic about forming a large currency area in East Asia (Mundell, 2003).<sup>2</sup> Interestingly, empirical literature is yet to support Mundell's claim. Instead, Lee and Koh (2012) and Yeh (2013) suggested East Asia as suitable for smaller currency areas. Thus, the literature contradicts about optimal size of East Asian currency area.

Conventional assumption of the OCA theory has been the trade enhancement, which is presumed as a major benefit of regional currency. Thus, economists expressed regional trade enhancement as a primary support for searching a suitable regional currency in East Asia. However, the link between a regional currency arrangement and additional trade enhancement is yet to be empirically established. East Asian countries have already achieved substantial trade enhancement in spite of having often volatile individual currency and independent currency management techniques. Thus, the real benefit of a regional currency management policy (in terms of additional trade enhancement) over the high cost of a large currency area formation remains controversial.

Such ongoing misperception over potential East Asian currency management policy enhances necessity to revisit the East Asian currency and regional integration literature and to understand if a regional currency management policy can offer additional benefit over the ongoing regional trade integration policy and the individual currency arrangement practices. The article explores the issue and identifies that the East Asian leaders should focus on developing a regional trade policy instead of planning for any regional currency management policy. Current regional integration initiatives are highly influenced by the OCA theory and emphasize much on regional 'trade' integration. Such integration practice initially works well; however, have risk of enhanced intra-regional competition and the pressure of globalization in long run. Moreover, the OCA theory gives importance on regional currency management as a tool for trade enhancement, which in turn causes macroeconomic complicity within the region. Instead, regional 'trade policy' integration can ensure sustainable trade creation opportunity for all members and can avoid risk of intra-regional competition and trade diversion. This is high time for East Asian leaders to develop a regional trade policy in their long-term regional policy guideline. At present, apart from developing some regional, bilateral and multilateral free trade areas (FTA), no serious initiative for regional trade policy integration has been observed in East Asia.

The remainder of the article is organized as follows. Section 2 discusses the theoretical base for regional currency management policy, while Section 3 reviews the existing regional currency arrangements and their impact on trade. A detailed comparison of East Asian regional integration against the possibilities and challenges of regional currency area formation has been presented in Section 4. Section 5 makes some policy recommendation based on the discussion of the article, and Chapter 6 concludes the article.

### **Theory on regional currency management: compatibility with East Asia**

Economists have long debated the question of the optimum currency area and its practicability with an appropriate exchange rate regime. Since the 1960s, numerous studies have accumulated the discussion whether countries should focus on national currencies with flexible exchange rates or should move towards common currency areas. Following implementation of Euro, a number of academic studies have explored the feasibility for formation of large currency areas in different regions. For this purpose, optimum currency area (OCA) theory worked as the underlying guideline. For East Asia, regional trade enhancement is considered as a major motivation for optimum currency area formation. Analyzing reliability of this perception requires understanding the basics of the OCA theory.

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<sup>2</sup>Among others, Alesina and Barro (2002) and McKinnon (2003) are noteworthy.

### ***OCA theory: The basic***

The basic concept of optimum currency area theory is the work of Noble-prize winning economist, Robert Mundell (1961), who discussed different costs and benefits of designing a large currency area. In Mundell's paper, loss of independent monetary policy appears as the major cost for monetary union, where members of the union cannot handle any crisis or shock by using their own exchange rate mechanism. As a result, symmetry of demand and supply shocks among the members is an important criterion to develop the geographical region of optimal currency area. Among others, trade and financial integration, wage and price flexibility and factor mobility play significant role in a currency area. Considering these criteria, Mundell concluded the initial concept of OCA theory in favor of smaller and homogeneous currency areas (Mundell, 1961).

Mundell's (1961) OCA theory had been subject to numerous criticisms from two aspects (McKinnon, 1963 and Kenen, 1969). First, Mundell identified flexible exchange rate as a source of macroeconomic instability in a highly integrated economy. Hence market expectation adjustment using flexible exchange rate would not work in the presence of aggregated demand and supply shock. Second, investment flows towards less risky countries to minimize portfolio risk, which provides higher preference for fixed exchange rate or monetary union. This fact was ignored in Mundell's initial OCA theory. McKinnon (1963) further improved the idea of optimum currency area with three objectives: full employment; balanced international payments and stability in the average price level. The primary condition for achieving these objectives is formation of a single currency area with a combination of monetary-fiscal policy; and a flexible external exchange rate. McKinnon's model is based on a shift in resources amid various industries, where degree of internal resource immobility among industries is considered as an obstacle for optimality of currency area. The model, however, fails to balance size and openness of a single currency area with geographic factor mobility. Instead, Eichengreen (1997) supports Mundell's (1961) OCA theory as an 'organizing framework for analyses, although he puts more importance on symmetry of macroeconomic shocks rather than relative wages and labor mobility while explaining the adjustment mechanism. Balancing between saving in transaction cost and diminishing policy autonomy becomes more complicated when some asymmetry exists in macroeconomic shocks and the independent monetary policy becomes more important to offset them.

However, Mundell (1973) in a later paper casts doubt on the undermining effect of asymmetric shocks on common currency. Since trade partners share output in a common currency, the effects of adverse shocks are also shared between partners. Countries with national currency and flexible exchange rate fail to take advantage of this phenomenon and suffer from higher cost of shocks. McKinnon supported this idea in his several papers (McKinnon, 2001 and 2004). In addition, he added two key requirements for a successful common monetary standard; a proper anchoring mechanism and a unique standardization. As such, McKinnon (2004) proposed East Asia as a future natural Optimum Currency Area. A similar suggestion comes from Bayoumi and Eichengreen (1997), who mention East Asia as the most 'plausible candidate' for a currency union after the 'Euro area'.

Dispute over the shock absorbability of different exchange rate arrangements and its importance in the OCA policy are crucial in early literature. A flexible exchange rate is expected to act as a 'shock absorbent', whereas "market errors" and the consequent misalignment in exchange rates under floating exchange rate regimes have been substantial (Breuer, 1994). Disproportionate volatility in exchange rates increases uncertainties, discourages trade, diminishes investments, and reduces overall economic growth (Corbo and Cox, 1995). Eventually, the flexible exchange rate turns out to be a 'source of shocks' rather than acting as a 'shock absorber'. Hedging removes the instability arising from flexible exchange rates, but equally increases the transaction cost. As such, a common regional currency was considered as a better option to diminish some of the difficulties of a flexible exchange rate system (Madhur, 2002).

Some economists even argued that a currency union can primarily reduce inflation (Frankel & Rose, 2002). However, some cost of macroeconomic instability exists in parallel to the benefits of the lower inflation. These costs are larger if the shocks of the member countries are poorly correlated. For example, the very fast acceptance worldwide was the initial success of the Euro, which was driven by numerous political, technical and economic factors (de Grauwe, 2002). However, two obstacles became dominant in achieving the long-term success of Euro land - the future monetary policy strategy and enlargement of the monetary union. An alarming discrepancy became prevalent between the European Central Bank's (ECB) announced policy strategy and policy actions, and their targeted low inflation rate was proved unrealistic. Besides, expansion of the union initiated two complications. First, cost of the union would increase over benefit, as ECB's interest rate decision would be unfavorable to some members more often. As a result, pressure to enhance labor market flexibility would increase on the members. Second, setting an overall regional interest rate to satisfy all members of a large union is difficult, and it makes the board's strategic position more complex. In fact, these issues are getting prominent with enlargement of the Euro land. Considering these difficulties, importance of determining optimality of East Asian Currency area decreases over time (in spite of having substantial theoretical support). However, recent attempt of some East Asian countries to use Renminbi as an exchange medium (to replace dollar) prioritizes reassessment of the prospect of a regional currency management policy instead of assessing the optimality of currency area.

#### ***Limitation of OCA theory in real world application***

The theoretical overview of the OCA literature suggests some guidelines to get benefits of a currency union. These guidelines comprise greater flexibility in wages and prices among the member countries, greater mobility of factors of production (labor and capital) across countries, more symmetric shocks across countries, more openness among the economies within the union and a larger share of trade among the member nations (Madhur, 2002). Though literature mentions the European Economic and Monetary Union (EMU) as the only empirical example of an optimum currency area, Pomfret (2005) disagrees by referring EMU as a 'monetary policy theory' rather than an 'OCA theory'.

In line with Pomfret's claim, Matthes (2009) assessed first ten years' performance of EMU and raised question about continuing EMU's journey towards an OCA. He suggested for deferring the journey until achieving two OCA properties. First, some EMU members (mostly southern European countries) still struggle to synchronize their domestic economic policy and wage policy with the central policy, which needs to be eliminated or at least reduced. Second, instead of convergence, 'endogeneity of EMU' accumulates divergence at macroeconomic level among the members. Matthes (2009) claimed that the situation has been worsened due to the recent financial crisis and suspects that the situation would raise questions about the reputation of the EMU and the Euro in the long run. In fact, Matthes's doubt turned true to certain extent in recent years, especially through the sufferings of Greece in complying with central policy and the ongoing complication of BREXIT initiated by the UK.

The EU-case also raises cautions about developing new currency areas such as East Asia. Theoretically, a proper optimum currency area should be beneficial particularly in terms of trade and productivity. However, in practice, macroeconomic harmonization among members seems more challenging compare to presumed benefit. Considering such limitation, compatibility of the OCA theory with East Asian economy becomes questionable. In particular, despite substantial misalignment of individual currencies, East Asian countries did well in managing consistent high trade growth for more than a decade. As such, understanding the real importance of a formal regional currency management system (particularly in terms of trade growth) is crucial. The next section analyses this matter by exploring past empirical evidences of different regional currency arrangements around the world and its impact on regional trade growth.

## **Regional currency arrangements around the world: Impacts on trade**

Originated from the OCA theory, regional currency literature has evolved on different arrangements of currency management techniques and their impacts on regional economy. The early literature on regional currency aimed at identifying the significant factors for developing the currency areas. Prime factors for assessing success of a large currency area were identified as the economic costs and benefits for the member countries. The key economic cost is the loss of national autonomy on the monetary policy; while the major benefit is the reduction of the transaction costs in cross-border businesses and the elimination of the exchange rate volatility across the region. The trade dampening effect of exchange rate volatility also received statistical support in currency literature after the mid-nineties. A particular example is Rose (2000), who estimated the impact of regional currency adoption with a broader concept than just elimination of exchange rate volatility. Most prior studies concluded this concept as statistically insignificant or weak (for example, Frankel and Wei, 1993).

### ***Initial currency literature and the wave of optimism***

Conventional wisdom until 21<sup>st</sup> century believed that regional currency adoption facilitates for trade and investment among the members of the region, which in turn intensifies the economic activities within the region (for example, Rose, 2000). The underlying consideration was that as a common language facilitates successful communication, similarly a common currency induces trade and investment among the members (Alesina and Barro, 2002). However, sharing a common regional currency is a much more serious and durable commitment than maintaining a fixed rate. Empirically, there is more substantial trade inside a country than between countries. This home bias effect occurs, at least partially, due to the use of a single currency inside a country. Similar impact is expected when some countries share a common currency; although many earlier attempts of empirical time-series literature failed to find significant impact of exchange rate volatility on the international trade and investment pattern (Kenen and Rodrik, 1986). Similarly, Obstfeld (1997) and Wyplosz (1997) showed insignificant trade expansion possibilities in Europe through elimination of exchange rate volatility.

In contrast, Rose (2000) examined a large cross-country data and identified that two countries having same currency trade more than two comparable countries using own currencies. He claimed that one of the few undoubted gains from the European Economic and Monetary Union (EMU) was an increase in trade. Trade enhancement was not solely due to elimination of exchange rate volatility, because the exchange rate volatility was low before the formation of EMU and the remaining volatility could be hedged through future contracts. This happened because trade enhancement led by a common currency could cause important repercussions. Incremental trade caused disputes and frictions with increase in trade volume. Increased international competition could have led to layoffs and associated labor market pressures. It also enhanced the synchronization of business cycles across countries. Other countries would join a common currency area, leading to a further increase in global integration. And finally, increases in trade lead to substantial extra gains for consumers inside the currency union. As a result, the trade is high between common-currency countries. Exchange rate volatility reduces trade, but to a much smaller degree.

Rose's cross-sectional approach of currency union and trade analysis was subject to doubts about the sensitivity and robustness. Besides, calculation of the additional amount of trade possible by common currency members could not be obtained by eliminating the time-series. In response to this limitation, Glick and Rose (2002) applied panel approach and observed that a country-pair sharing a common currency experience almost a doubling of bilateral trade, while a country-pair dissolving a common currency face a halving of bilateral trade. Furthermore, they employed the gravity model of trade and the growth convergence model of Mankiw, et al (1992), and identified two important issues. First, common currencies enhance bilateral trade and trade openness without causing any trade diversion; and second, enhanced trade increases income irrespective of any improvement of the other factors. These two issues were particularly emphasized by East Asian currency literature when considering East Asia as an optimum currency area. However, East Asian countries maintained

substantially high intra-regional openness for decades and being gradually open extra-regionally in absence of any formal regional currency arrangement. Hence, real benefit of any regional currency arrangement remains under doubt.

### ***The recent years' pessimism in empirical literature***

Numerous shortcomings of the trade model used in early literature raised question about the findings of Glick and Rose (2002). Some of these shortcomings were modified over time. For example, Melitz (2001) controlled the political effects and Rose and Wincoop (2001) applied the multilateral-trade-resistance index to currency union. Both studies found low trade impact of a regional currency, which was 59 per cent for Euro members. Nardis and Vicarelli (2003) distinguished the effect of common currency adoption from the exchange rate volatility effect, and showed that the Euro increased extra-EMU trade by 6.3 per cent and intra-EMU trade by 2.6 per cent. Clearly, the initial claim for high trade benefit from a regional currency management system has been empirically neutralized over time.

These findings diverted attention of some recent literature towards the intra- and extra-regional trade integration instead of measuring trade benefit of monetary and currency union. In particular, Peridy (2005) evidenced that in spite of having similar economic size, development and macroeconomic performance, East Asian countries (China as exception) lag behind to penetrate the EU market compared to the Mediterranean countries. Both regions are advancing with formal economic integration within the region, as well as with the non-member trade partners. However, their policy differs forming regional ties with the 'Northern countries' (Peridy, 2005: p. 130). The outcome is 43 per cent of the Mediterranean export goes to the EU, while the amount is only 12 per cent for the East Asian members. Geographic location of EU could have played important role for such disparity; however, the empirical finding indicates that a wider area of trade integration needs to be focused by the East Asian leaders instead of moving towards a large currency area. Thus, controversy over usefulness of a regional currency management policy in East Asia begins in the 21st century.

Confusion over anticipated trade benefit from a regional currency is further intensified by recent years' diversified experience among the African countries. The regional integration of the EU and the East African Community (EAC) lead to moderate trade creation between the 'two regions and relatively high openness of the emerging trading partners to EAC members' export (Darku, 2009). In the contrary, the West African Monetary Zone (WAMZ) faces difficulty in introducing common corrective policies among the members which affects their extra-regional integration (Addison, Opoku-Afari and Kiful, 2005). This happened due to dissimilarity in the cross-country correlation. Though evidence of partial convergence exists in the region, WAMZ members are far away from formation of a fully convergent area. Similarly, macroeconomic heterogeneity among the East Asian members would make a regional currency arrangement more costly compare to the expected benefit of the integration process. East Asian leaders should pay attention to this issue if designing any long-term regional currency management policy.

Much of the literature on regional currency management and economic integration are EMU oriented. The empirical evidences of these studies, however, are inconclusive. Some economists conclude the impact of regional economic integration and common currency management as significantly positive for the intra- and extra-regional trade creation, while others question about the level of significance. Indeed, most studies agree on the substantial positive trade creation among the Euro members, though the extent of extra-regional trade creation is still under debate. In addition, Matthes (2009) casts doubt on EMU's achievement in fostering the economic convergence among members. Although he agreed that the current divergence could be endured under normal economic situation, he showed concern about the possibilities of large current account deficit with the continuing divergence following the recent global financial crisis.

Clearly, the empirical literature on regional currency management is inconclusive about the impact of a regional currency on trade enhancement. Most studies agree that the Euro has initially been proved as a successful regional currency; however, its long-run success remains questionable. Besides, optimality of the Euro area is still under dispute. Similar dispute exists over East Asian regional currency management policy. The debate is further fueled by the successful regional trade integration of East Asian countries in last two decades in absence of any regional currency arrangements. The next section investigates the empirical literature to comment on the ongoing controversy over optimal currency area in East Asia, and thus proposes regional trade management policy as an alternative tool for regional trade enhancement.

### **Prospect of a regional trade management policy in East Asia: Comparison with regional currency management**

The 1997 Asian financial crisis instigated the trend among East Asian economies to move towards the flexible exchange rate regime, though much controversy existed over suitable long-run currency arrangement in East Asia. Economists explored alternative possibilities for regional currency management in East Asia, though it is mostly confined to examining either the introduction of a currency basket or currency pegging. Performance of several exchange-rate arrangements under different shocks and the related impact on output and inflation variability worked as catalyst for such exploration (McKibbin and Le, 2004). The exchange-rate management of the Japanese Yen appeared as a potential alternative for regional currency management (Plummer and Wignaraja, 2007). Besides, the US dollar was considered as the de facto or de jure anchor in East Asia (Kawai, 2002). Alternative to the free-floating system, Williamson (1999) and Dornbusch and Park (1999) proposed to stabilize competitiveness of the East Asian exports by pegging their currencies to a currency basket consisting of the Yen, Dollar and Euro. Adoption of the US dollar as a common currency has also been proposed as potential alternative (Alesina and Barro, 2002 and McKinnon, 2003). However, such diversified suggestions of earlier literature made the choice of long-term regional currency management policy difficult for East Asian policy makers.

While most studies focus on viability and size of a large currency area in East Asia, Mundell (2003) emphasized on selection of an anchor currency. In spite of exchange rate instability, he suggested Japanese Yen as an anchor in East Asia due to Japan's developed economy with very strong GDP and investment ability. He also highlighted feasibility of Chinese currency as an alternative anchor due to China's emerging economy with strong GDP and leading global business. However, the country's financial system and currency convertibility on capital account is not yet up to the mark. Mundell hoped that Japan's correction of macroeconomic problems (such as, secular currency appreciation and policy mix) and future planning for a cooperative arrangement between China and Japan would open an opportunity for an internal anchor currency selection for East Asia, or more specifically for ASEAN+3.<sup>3</sup> Otherwise, Mundell (2003) recommended selecting the dollar as an anchor currency, which is already being practiced by China, Hong Kong, Malaysia and Singapore.

Though Mundell (2003) suggested selection of anchor currency as a major concern for Asian currency area, the empirical findings of the growing literature are divergent in the question of an East Asian currency area. While analyzing feasibility and level of preparation of the members for forming a large currency area in East Asia, these literatures indeed emphasized on forming limited sized of currency areas. Thus, empirical evidences contradict the feasibility of East Asian regional currency management policy. Such contradiction appears from two perspectives; potential size of a currency area and selection of a currency block.

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<sup>3</sup> ASEAN members, China, Japan and Korea

### ***Controversy over potential size of currency area in East Asia***

Based on similarity of net foreign asset position and the level of terms-of-trade correlation, Ramayandi (2005) claimed that the five largest ASEAN economies meet some essential preconditions to form a currency area; although a significant level of economic divergence and lack of strong political commitment substantially exists. In a similar but more rigorous study, Kim (2007) suggested that output responses to supply shocks across Asian countries are consistent while output responses to demand shocks vary largely in both short and long run. In case of inflation, however, responses to demand shocks show similarity across these countries, while responses to supply shocks vary largely. This might be the reflection of differences in market institutions and the level of income, which makes designing of a common macroeconomic policy difficult in East Asia. Kim's (2007) study in fact supports Mundell's (2003) suggestion for institutional, economic and political groundwork as the 'precursor' for East Asian monetary union; however, vastly vary in the question of size of a regional currency area.

In response to the contradiction in earlier literature, some recent literature applies alternative approaches to evaluate feasibility of OCA theory in Asia. Sato, Zhang and Allen (2009) applied the multivariate co-integration technique and identified two feasible monetary groups; one is the Asian NIEs plus the United States and the other is ASEAN5 plus Japan. China was not found feasible for joining either group. However, the study suffered from the lack of sensitivity check and failed to capture if there was any diversity in short-run response of shocks among members. Instead, Nguyen (2009) decomposed aggregate output into world, regional and country-specific components by employing the dynamic factor model; and identified East Asian currency area as less plausible compare to the EMU. However, he supported a sub-group of Korea, Hong Kong, Singapore, Malaysia, Indonesia and Thailand; and opposed Japan and China's synchronization with other Asian countries. Similar concept of small sub-groupings in East Asia was suggested by Zhang, Sato and McAleer (2004) and Sato and Zhang (2006), but with different composition.

Soo and Choong (2009) investigated the possibility of an East Asian single currency area by decomposing external shocks into global, regional and country-specific shocks. They included Hong Kong, Indonesia, Korea, Malaysia, Philippines and Singapore in their study, and observed strong segmentation among these economies in the pre-Asian crisis period that reduced over time. In contrast, Lim and McAleer's (2004) claimed that income convergence between ASEAN-5 countries would decline over time. Thus, all these recent studies showed some sign of gradual convergences among Asian economies; however, are yet diverged in the question of potential size of currency area in East Asia.

### ***Controversy over potential currency block***

Besides contradiction over potential size, controversy surrounds selection of the appropriate currency block for the region. Some economists claim Asia as a dollar block (for example, McKinnon, 2005), while others emphasize this region as a yen block (for example, Karras, 2005). Similar contradiction exists between idea of new regional currency (Jeon & Zhang, 2007) and adoption of a currency basket (Ogawa and Junko, 2006). Observing trade intensity, inflation, price co-movements and output co-movements, Alesina, Barro, and Tenreyro (2003) suggested a basket of the dollar, the Euro and the Yen to form an optimum anchor currency for the ASEAN members. Williamson (2005) recommended a basket of 40.2 per cent dollars, 31.6 per cent Euros and 28.2 per cent Yen for ASEAN5, NIEs and China. A similar proposal of currency basket came from Ogawa and Junko (2006), though they suggested individual composition structure for each East Asian country at the initial stage. Thus, they in fact opposed the concept of regional currency in East Asia, instead supported individual currency management policy guided by a regional currency indexing.<sup>4</sup>

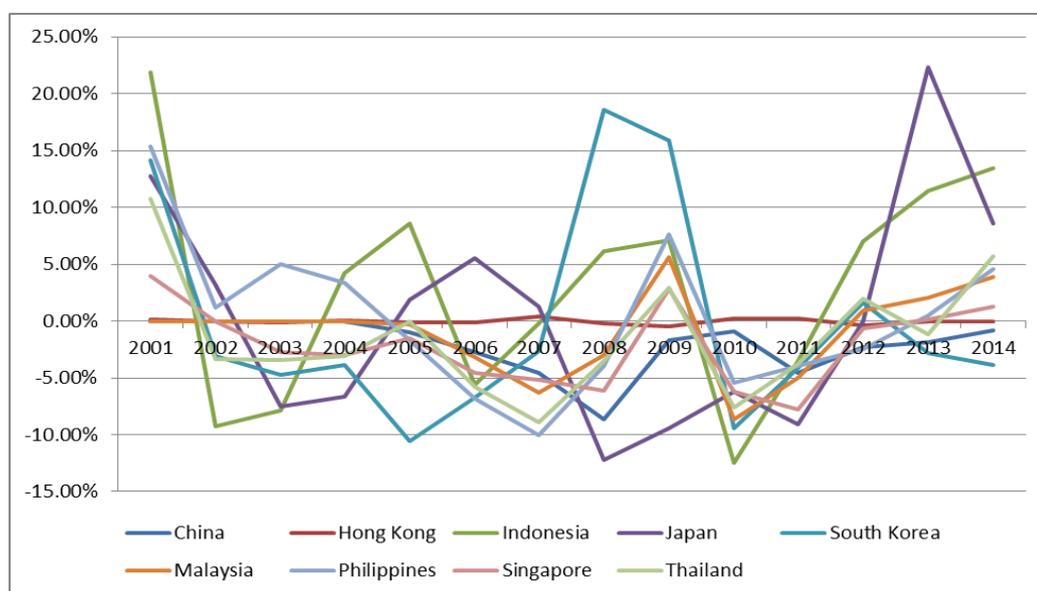
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<sup>4</sup> For detail about regional currency indexing, please see: Pontines (2013)

Attempting to provide a better explanation about the role of global currencies, Click (2009) studied daily data for the ASEAN post-crisis period of January 1, 1999 to December 31, 2007 and observed a partial influence of dollar, especially in short run. Pound had a stronger influence even in the long run, while Yen and Euro hardly showed any substantial influence on East Asian economies. However, Click's result suffered from a severe deficiency because Pound itself would be influenced by the dollar and the Euro. Instead, Adams and Chow (2009) suggested de jure movement towards any currency basket, which coincides with the suggestions of Alesina, Barro, and Tenreyro (2003) and Williamson (2005). Thus, concept of currency basket receives enormous support from empirical literature, though optimality of Asian currency area remains undecided. Similarly, composition of a broader regional currency basket is yet to be proved as realistic; instead, major empirical studies support some sub-regional currency baskets.

***Existing level of macroeconomic synchronization and feasibility of a regional trade management policy***

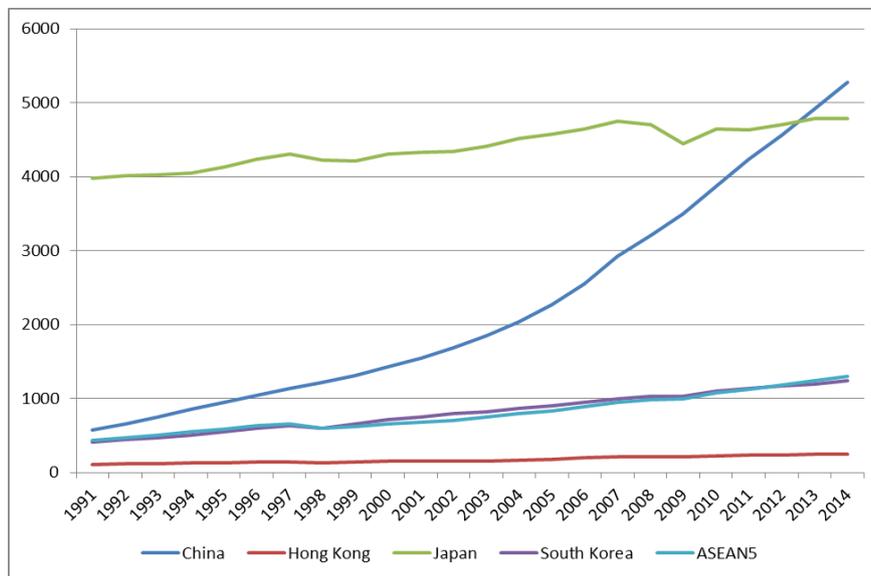
East Asian currency literature identify business cycle synchronization and trade intensity as important catalyst in deciding optimality of a currency area. Theoretically, impact of trade intensity on business cycle synchronization is contradictory. Removal of trade barriers creates asymmetry in business cycle during industry-specific shocks. On the other hand, enhanced trade intensity increases business cycle correlation through the common demand shocks or through the intra-industry trade (Lee and Azali, 2010). Impact of trade intensity on business cycle synchronization is also observed as significant. Frankel and Rose (1998) find positive influence of bilateral trade on business cycles, while Calderon, Chong and Stein (2003) observed the influence to be higher in the North-North country pairs than the North-South and the South-South country pairs. In a more concise study, Moneta and Ruffer (2009) showed that most East Asian countries (except Japan and China) share significant common growth dynamics, which is prominent for export rather than consumption and investment. As such, the question is whether a regional currency management policy would further induce East Asian export growth since the optimality of exports dynamic is already achieved with country-specific individual currency management system.



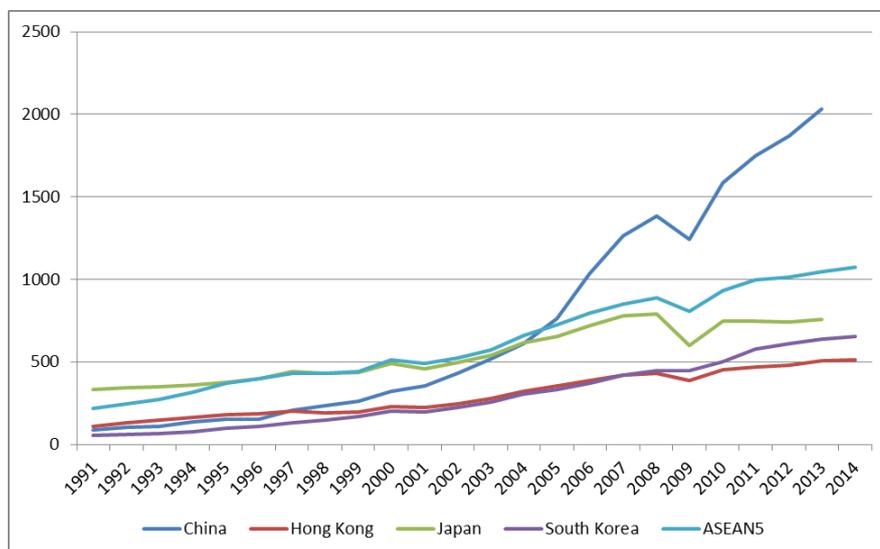
*Figure 1: Year-on change for the annual average of exchange rate – Local currency against USD (2001-2014)*

*Source: Authors' calculation based on World Bank national accounts data and OECD National Accounts data collected from World Bank Development Indicator (WDI) Database*

In addition to trade and business cycle synchronization, most East Asian countries show synchronization between exchange rate stability and price stability which mostly occurs using US dollar as an anchor currency (McKinnon and Schnabl, 2004). Except Indonesia and Philippines, most small economies maintained a soft peg with dollar in the pre-crisis period and experienced similar price index movement with the United States. During post-crisis, Singapore and Taiwan reduce their exchange rate volatility using a diversified currency basket, while capital control and hard dollar peg enables Malaysia to maintain zero volatility at least until 2014.



(a) Real GDP



(b) Real exports

Figure 2: GDP and exports of East Asian countries (1991-2014)

Source: Authors' calculation based on World Bank national accounts data and OECD National Accounts data collected from World Bank Development Indicator (WDI) Database

Qin and Tan (2009), however, question about East Asia's success in using the US dollar as an anchor currency. They identified the short-run exchange rate shocks as the main constituent of intra-regional variability, which substantially affect inflation and intra-regional trade of ASEAN+3 countries. A regional currency management system would significantly reduce this effect through exchange rate volatility elimination, reduction of

transaction cost and uncertainty in the international capital flow. In fact, Mundell's (1961) OCA theory hypothesizes that a common currency ensures fixed exchange rate within the region, thus realizing the motivations of exchange rate stability. In comparison of the exchange rate volatility effect on growth between emerging Europe and East Asia, Schnabl's (2009) empirical results also corroborated the theoretical framework of the negative growth impact of exchange rate volatility on the emerging market economies. However, the cost involved in achieving necessary synchronization for a large currency area formation in East Asia an important policy factor but remains unexplored in literature.

In our exploration, 'real' data does not indicate possibility of dramatic change in East Asian exports through elimination of exchange rate volatility. The observations are presented in Figure 1 and Figure 2. Figure 1 presents year-on change of the annual average of exchange rate for the major East Asian countries for the period of 2001-2014.<sup>5</sup> During this period, none of the major East Asian economies are observed to maintain exchange rate stability against dollar (which is the widely accepted exchange currency in the region) except Hong Kong. This led economists to often criticize individual currency management policy of the East Asian countries. However, despite high exchange rate volatility in East Asia, countries did well in both GDP and trade growth as presented in Figure 2.

Figure 2 shows real GDP and flow of real exports for the major East Asian economies. Both GDP and export drastically improved in East Asia in last two decades (1991-2014).<sup>6</sup> In particular, Chinese GDP (Panel a) and Chinese export (Panel b) increased by five times in 24 years. Similarly, ASEAN and South Korean GDP increased by four times during this period. ASEAN export increased by five times, and South Korean export increased by nearly 10 times in last 24 years. Clearly, East Asian trade and economic growth in the last two decades was hardly affected by deficiency of individual currency management policies. This was possible due to the practice of region-wide production networks and the informal market driven regional integration initiatives. However, East Asian countries currently involve in developing numerous bilateral and multilateral trade agreement within and outside the region. Without any regional trade policy, such diversified trade agreements would destabilize existing regional harmony and induce regional competition instead of enhancing cooperation. We already observed the repercussion in East Asia when president Barak Obama proposed for TPP including three East Asian economies and excluding the others. Hence, a proper regional trade policy is more desirable in East Asia to further improve the regional production and trade integration initiatives instead of introducing any regional currency management policy. With a clear regional trade policy, East Asia can avoid any conflict related to the intra- and extra-regional trade integration process.

### **Policy recommendation: 21<sup>st</sup> century perspective of East Asian Integration**

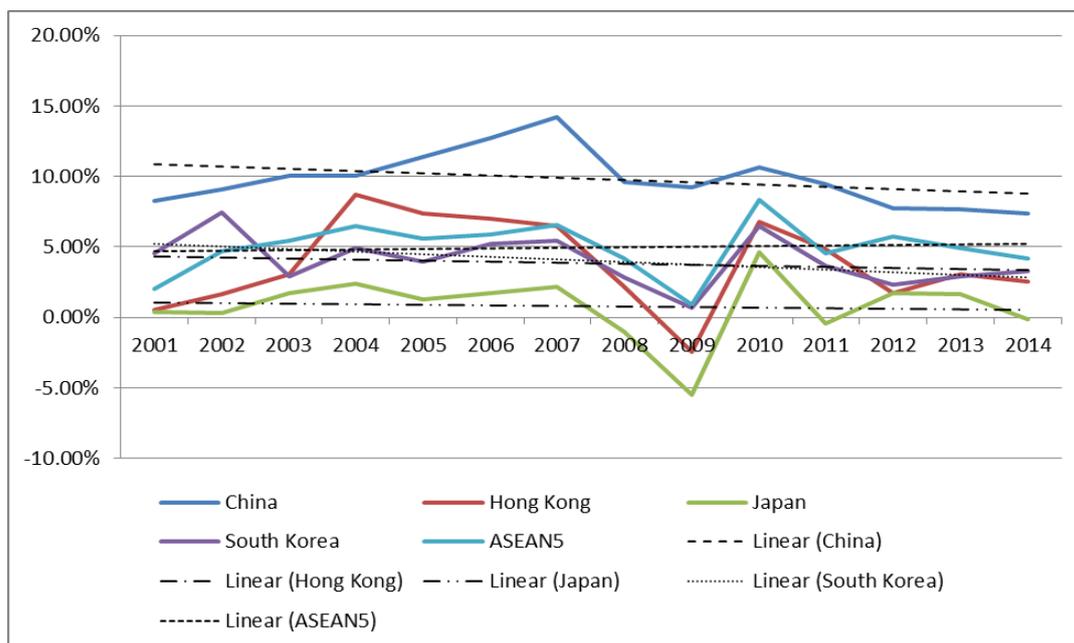
The impact of a regional currency arrangement on trade depends much on the extent of trade integration that has advanced through different free trade agreements (FTAs) among members. Usually regional integration is a pre-condition to forming a regional currency arrangement. Hence, a currency union is expected to create additional trade over the amount of trade creation that occurred through the development of FTAs. Empirically, the East Asian countries failed to show substantial sign of Panel convergence in the last 40 years other than achieving high trade and economic growth (Thong, 2014). Under such condition, high cost of macroeconomic convergence over conventionally presumed benefit of a regional currency would turn regional currency management initiative into a trouble maker. In that sense, Yeh's (2013) suggestion seems more accountable.

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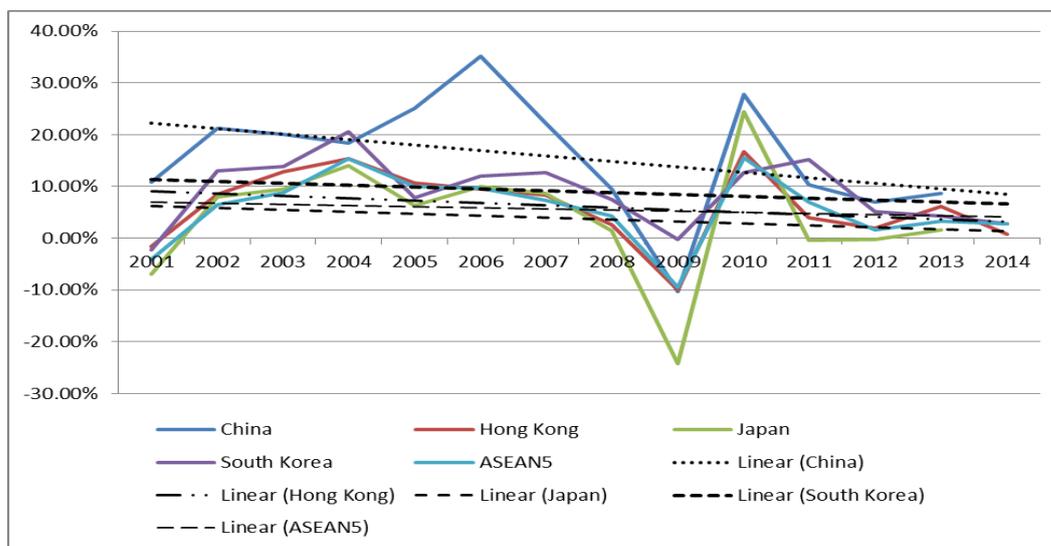
<sup>5</sup> Since most East Asian countries followed fixed exchange rate system until the Asian crisis, our observation period starts after the crisis period.

<sup>6</sup> GDP and export value of individual ASEAN countries are much lower to other four East Asian economies. Hence, we added ASEAN5 (Indonesia, Malaysia, Philippines, Singapore and Thailand) to make the data comparable.

Yeh disagreed to the scope of adopting any regional currency as a long-term constraint; and suggested the East Asian countries to stick to own-basket constraint. If some members wish to form monetary union, transition period must be shortened instead of waiting for gradual convergence.



(a) Real GDP growth



(b) Real exports growth

Figure 3: Trend line analysis (2001-2014)

Source: Authors' calculation based on World Bank national accounts data and OECD National Accounts data collected from World Bank Development Indicator (WDI) Database

A more realistic proposition for the East Asian leaders would be to continue with individual currency management policy and focus on regional trade policy integration. Members of this region have followed diversified trade integration techniques over last three decades by developing regional as well as sub-regional and bilateral trade agreements within and outside the region (for detail, please see Sally and Sen, 2005). These diversified trade arrangements (or trade ties) brought initial success of regional trade enhancement even in

presence of substantial heterogeneity among regional members' currency management policies and volatile performance of individual currencies. The members, however, are currently at risk of entering income trap, gradual trade slowdown, intra-regional competition and pressure of globalization. Some evidences of East Asian economic slowdown are observed in Figure 3, which shows the growth trend of GDP and exports for major East Asian economies during the post-crisis period (2001-2014). For both indicators, growth was substantially high until recent Global Financial Crisis (GFC). The GFC afterward, growth rate for both GDP and export are relatively low. The downward trends are further evidenced from the trend line analysis. Except ASEAN5, GDP growth trend are downward, in particular for China. Trend lines for export growth are downward sloping for all of the major East Asian economies. Thus, the figure presents a clear evidence of slowdown of East Asian economic growth and signals for possibility of future stagnation.

East Asia has two escape ways for such regional growth stagnation. First, regional harmonization can be further induced driven by regional monetary and currency management policy integration (as suggested by OCA literature); and second, furthering regional trade integration and trade creation by introducing a harmonized regional trade management policy. Either harmonization initiative would create employment in the region and increase income level. However, the former requires strong political, institutional and social commitment which would be expensive and time consuming. Besides, most of the perceived benefits of a regional currency are achieved by East Asian members without forming any region-wide currency area. In that sense, a regional trade management policy could be a better choice for East Asian leaders. Moreover, harmonization of trade policy is relatively cheaper and easier to achieve compare to introduction of a regional currency management policy. Objective of the 'regional trade management policy' is to further integration and improvement of existing regional production network, thus creating additional trade opportunity for all members without causing any trade diversion within the region. The policy should design a clear outline for suppliers and users of the regional factors of production and identify the potential participants at different levels of regional production and supply chain system, as well as the potential participants of the regional service sectors (including financial service).

## **Conclusion**

A major motivation of the post-crisis era's (Asian Financial Crisis) East Asian integration had been assessment of potential trade enhancement through a regional currency management policy, although the empirical evidence for such policy was inconclusive and confusing. The article revisits literature to explain why 'regional currency management policy' is not suitable for East Asia and proposes 'regional trade management policy' as an alternative 21st century policy goal. The extensive study identifies an important issue about the regional currency management policy and related trade potential for East Asian countries. Generally, a regional currency arrangement is assumed to increase trade by more than the comparative reduction in exchange rate volatility, and the strategy had been considered as highly favorable to East Asia's long-term economic stability (as suggested by Mundell, 2003; Lee and Koh, 2012; Yeh, 2013). The idea was supported by conventional belief of the OCA theory that a regional currency should make members more open to each other without causing trade diversion. East Asian members, however, require high level of political institutionalization and policy convergence before approaching any regional currency management policy. Instead, the current process of regional integration through FTAs creates positive impact on regional trade creation. East Asian intra- and extra-regional trade is sufficiently high and increased quickly in last two decades. The only drawback is that the current integration process suffers from sub-regional and individual preferences and diversification. In that sense, further institutionalization of regional trade policy seems more effective than a regional currency management policy in creating trade opportunity and fostering economic growth. Similar concern has been brought forward by Pomfret (2005) but without much conclusive suggestions.

The OCA literature identifies an important trade-off for establishing regional currency area. Regional currency arrangement induces trade and investment by reducing currency risk, but at a high cost of policy correction for bringing the desired level of macroeconomic convergence. Even after achieving the desired level of pre-EMU

convergence, the success of EMU has been empirically inconclusive. Many EU members are struggling to maintain the convergence level, and existence of EMU in long run has become questionable. Hence, successful regional economic and trade integration is just a primary condition for monetary and currency union, but hardly ensure sustainability of the union in long run. East Asian countries are already able to increase trade through their ongoing regional integration process. As such, a regional currency arrangement may not provide substantial additional benefit to East Asian trade rather incur high cost of policy correction and macroeconomic stabilization. Hence, East Asian countries should continue with their individual currency management policy and concentrate more on formalization of regional trade policy. Low level of regional trade integration initiatives is observed in East Asia (through developing FTAs) which is particularly induced by the successful regional production networks. However, a broader level of regional trade policy integration is essential for handling upcoming challenges such as income and growth trap, pressure of globalization, risk of trade diversion and increased competition within the region. The policy can be further extended to support East Asia's recent initiative for capital market integration.

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