A Query into the Unification of Currencies in South East Asia

By

Ivan Frank M. Olea

THESIS

Submitted to
KDI School of Public Policy and Management
In Partial fulfillment of the requirements
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Introduction

Against the backdrop of an epochal financial architecture and the bold efforts at integrating differing economies in the European zone, the author of this paper attempts an empirical perusal into the unification of currencies among the 10 member states of the Association of South East Asian Nations (ASEAN). This query comes at a particularly auspicious junction due to the convergence of 3 compelling series of events that have transpired in the recent years; namely, the attainment of a holistic ASEAN, the ever increasing international capital mobility and the evolutionary thinking among monetary economists on the narrowed choices of an appropriate exchange rate regime.

Since the inception of ASEAN in 1967, the 4 founding member nations (Indonesia, Philippines, Malaysia, and Thailand) envisioned a geographic region, which shared a common destiny. In the midst of social and political tumults, the aforesaid vision propounded on a politically harmonious, economically prosperous and an outward looking association of countries. On 16th December 1998, the dream of full envelopment of all 10 countries within ASEAN finally came into fruition with the entry of the Kingdom of Cambodia. Thereafter, ASEAN has been particularly embroiled in ensuring the realization of an economically prosperous region.

In juxtapose to ASEAN's gradual solidity, an economic phenomenon has pervasively extended its presence to the international financial scene. The growth and enmeshment of equity markets in various developed and emerging countries have been well documented.[1] This ongoing phenomenon, which emanated from the USA, has riveted the world with the belief that these markets are keys toward the efficient allocation of financial resources. Through the pursuit of maximization of shareholder wealth, companies, which showed promise in terms of economic

1. Numerous studies have pointed out the ever-closer correlation between global equity markets. However, this remains to be clearly established.

growth and profitability, have been given favorable chances for further commercial expansion. This in turn has bred more competition towards the provision of better quality of products and services, with a wider purview of offerings at affordable prices. Hence, the cross border capital flows have, supposedly, been intended for the optimization of financial capital returns.

The much-lauded capital mobility exhibited staccato trends in the late 1990s. Previous inundation of financial capital from developed to emerging markets took a sudden reversal with the Thai Baht debacle. This result was a domino like effect that spread from South East Asia to Korea, Russia and Brazil within a span of one year. In hindsight, economists started advocating a slew of postulates on the possible causes of such economic catastrophes, the corresponding ramifications on the international financial architecture and the possible policies that may minimize future currency and financial crises. Out of this sea of policy recommendations came the near concurrence from among macroeconomists that the nature of a country's exchange rate regime (which interacted with other economic policies of respective governments) played an immanent role in the internal and external economic stability of a country. Moreover, within the context of international capital mobility, there was widespread belief that the choice of exchange rate regime be narrowed down to a preference between a hard peg and a totally flexible one.

The centripetal movement of the 3 aforementioned factors (the holistic formation of ASEAN, the mobility of capital, and near consensus on the severely narrowed options of exchange rate regimes) has made the concept of unifying ASEAN currencies more intellectually provocative. This has further been hinged upon the, arguably, successful launch of the Euro.

Objective

Based on the texts of ASEAN agreements through the years, one can reasonably infer the resoluteness of the organization in achieving one common economic market. This has further been extended to include ASEAN's projection as a unified bloc to the international community, and not a mere loose group of nations under an umbrella organization. Hence, the author tries to

examine whether current economic conditions can lead to the unification of currencies in the long run, which ought to assist ASEAN in further sealing its cohesive ambitions. In doing so, it is imperative to first learn if the region constitutes an optimum currency area.

Scope and Limitations

This paper does not attempt to comprehensively cover the entire span of inquest on the possible unification of ASEAN currencies. Bereft of the legal framework, political and cultural considerations, the author of this paper simply endeavored to empirically determine the validity of such an inquest. To further substantiate the study, the author also attempted to draw a certain degree of analogy between ASEAN and the historical development of the Euro. As was mentioned, upon closer examination of the transcripts from the series of ASEAN accords, the move towards one common economic market becomes apparent. This has subsequently led the author to ruminate on whether a currency union, within the context of existing theories regarding optimum currency areas, can lend a further contributory role towards a lasting ASEAN common market.

The author of this paper also wishes to accentuate that the purview of his endeavor aims to instigate a succession of future researches that will more thoroughly unearth the feasibility of such a topic. By this is meant that, the author willfully left out the analysis on each member country's specific characteristics and on its decision to adopt certain foreign exchange rate regimes, which are deemed to be justifications for the respective economic policies that they have chosen.[2]

2. According to macroeconomists, a country's exchange rate regime largely depends on its specific characteristics, the environment in which it is in and on the type of economic policies that it chooses to adopt.

The Need for One Currency

ASEAN was formally conceived in 1967. The 4 founding member nations (Indonesia, Malaysia, Philippines and Thailand) were not coy about their promulgation of a region steadfast in political stability, regional development and enhanced complementation with each other. This vision was subsequently enhanced by accords that aimed to gradually integrate the entire South East Asian region. The Concord of 1976 put forward another objective on the need to develop a sense of regional identity. By 1992 a Common Effective Preferential Tariff Scheme was set in place. Its main aim was to build a preferential trading arrangement to lay groundwork for a free trade area (ASEAN Free Trade Area or AFTA) with the barest of tariffs ranging from 0-5 % on agreed product lines. In principle, this tariff range would be implemented by 2003. [3] On the realization of the acceptance of the last prospective member , the Kingdom of Cambodia (1998), into the association, a certain sense of triumph was felt. After 21 years, the dream of unifying all 10 countries under one regional association was finally attained.

The ASEAN 2020 Vision and the Hanoi Action Plan of 1998 aimed a slew of objectives that ranged the spectrum from a politically stable region to a highly competitive and outward looking economic zone. Emphasis is given on the free flow of goods, services, investments and capital. In addition, equitable economic development and the reduction of poverty become paramount objectives that need to be addressed in order to ensure successful integration. Furthermore, it should be noted that the determination of ASEAN in its pursuit for integration could be exhibited through the frequency of its meetings at ministerial levels.[4]

ASEAN's aspirations do not defy economic logic. First of all, the signs of times indicate the thrust of region wide economic development as a subset of international economic integration. Europe's initial success with the launch of the Euro may have captivated the other geographic regions to further consolidate. Hence, the responses of South American, African and

3. A more detailed explanation of the ASEAN accords can be found on the ASEAN web site (www.asean.com)
4. The term integration does not only cover the economic aspect of the region, it encompasses the totality of the region (political, socio-cultural, and economic)

Middle Eastern countries to examine closer economic arrangements with each other. Second, by jointly developing the South East Asian region the countries have a stronger chance of meeting the emerging economic prowess of the People's Republic of China ad India (due to political sensitivities, this is not officially espoused). Thirdly, development within the region may mean that ASEAN members can also rely on regional growth to somewhat provide an alternative to the current major export markets that most of the countries rely to for international trade – USA, Japan, and Europe.

In view of these latest developments, the theory of optimum currency areas is seriously being considered outside the enclave of the academia. While it is true that a group of economists insist that the economic union of a region may not necessarily lead to monetary or currency integration, the opposite contention may also be viable. A common market can lead to future monetary union because it makes possible the free flow of movement of capital and labor from one area of a region to another. This allows for the further efficient allocation of resources within the zone. Thereby, increasing the total social welfare. This postulate has been supported by empirical studies conducted by Rose and Engel (2000).

The aforementioned researchers (Rose and Engel) used dis-aggregated international data and concluded that currency unions are more open and specialized than non-currency union countries of comparable size. They also discovered that trade between members of a currency union was much higher than trade between comparable countries by a factor of over 3. This stance was further made appealing with the added observation that volatility of exchange rates is lower for members of currency unions than for countries with independent currencies.

Even though Rose and Engel's study augurs well for regions to seriously complement their planned regional integration, caution must be taken on the matter. Rose and Engel's study did not consider the causality flows from economic integration to the currency union. Furthermore, nations have to seriously consider the repercussions of giving up monetary policy

as a tool to maintain external and internal equilibrium. The following sections will further try to dissect the anatomy of the issue.

A Précis of Lessons Learned from the Asian Crisis

The recently concluded ASEAN crisis raised awareness among ASEAN states, as well as other Asian economies, of the need to enhance monetary cooperation on a region wide scale. The herd-like behavior exhibited by investors brought about the ex post cognizance that investors may have a tendency to react cursorily when a country in the region experiences macroeconomic difficulties. According to Goldstein (1998), the beginning of a currency crisis instigates a "wake up" phenomenon wherein investors will be compelled to closely reassess other countries to try to determine a similarity with the afflicted economy. More often, due to the portfolio managers' lack of information, they are compelled to assume the worst.

To briefly recapitulate the inception of the Asian crisis, when Thailand's economy first showed signs of slowing down a gradual perception was built on the over valuation of the Baht. Investors and currency traders ascribed the possible misalignment of the currency due to the activities of the monetary authority; which was trying to limit the fluctuation of the Baht against the currency of its largest export market – the USA. Hence, when the US Dollar gradually strengthened against the Yen, the Thai Baht was also forced to follow the trend.[5] The subsequent burst of the bubble in Thailand was compounded with the insufficient disclosure of information by the government on the extent of the economic woes of the country. Understandably, investors and creditors assumed a worst-case scenario predominated by at tightening of credit and the devaluation of the currency. Despite the concerted efforts of the Central Bank of Thailand and other central banks in the region, the selling pressure on the currency persisted.

5. The US dollar started to experience great volatility against the Yen since the early 1990s (known to the Japanese as the period of the super Endaka). This made the Thai Baht appreciate in real terms due to interest rate differentials.

Soon Indonesia, Philippines and Malaysia experienced their share of massive capital withdrawals; which was hinged on the respective currencies' correlative movement with the US Dollar and shared interests in the USA as a major export market.

Numerous economists have studied the cited concert of investor and creditor withdrawals with great fervor. This is not due to the peculiarity of the crisis (the South American experience bears a certain degree of semblance) but in connection with the previous acclaim that a good number of the afflicted economies in the Asian region (not only in ASEAN) were viewed as paragons of contemporary economic success. It seemed slightly incomprehensible how such regional accomplishments could marginalize on the illusory.

A study made by Glick and Rose (1998) tried to explain the contagion effect of the currency crisis. They postulated that once Thailand was forced to float the Baht, its main trade competitors (Malaysia, Philippines, and Indonesia) had to be attacked by speculators. Otherwise, these economies would be relegated to an economically disadvantageous state. Hence, currency crises tend to follow international patterns of trade. The authors indicated that there was a tendency for countries that were compelled to devalue their currencies to experience recession. These resultant recessions usually pave the way to sharp reduction in imports, which then affected another county's exports.

In another paper by Berg and Patillo (1999), the authors strove to authenticate more concrete measures aimed at predicting currency crises. They analyzed the 3 models formulated by: Sachs, Tornell and Velasco, Frankel and Rose's Probit model, and Keminsky, Lizardo and Reinhart. The outcome of the study was inconclusive in the sense that no model was able to soundly predict a currency crisis (although the model of Keminisky, Lizardo and Reinhart came closest). However, the authors did volunteer that the 3 models statistically seemed to indicate that the probability of a currency crisis increased with the presence of the following variables: high domestic credit growth, an over valued exchange rate and a high ratio of M2 reserves.

It is a near dictum among macroeconomists that the type of exchange rate regime selected by a country should complement its particular economic objectives.[6] Meaning, a government that is inclined to favor populist measures may experience considerable challenges in maintaining a fixed rate regime. Likewise, an economy with substantial trade interests with another country may be reluctant to merely let the volatility of bilateral exchange rates be determined by market forces. Hence, a country's decision on its foreign exchange rate system is predicated on the desired levels of inflation and unemployment, in conjunction with the external balances of the economy. Yet, despite the conceptual acknowledgement of the circumstances in which a country may favor a particular exchange rate regime, a flurry of debates occurred in the direct aftermath of the Asian crisis on the appropriate regime that may be more resilient to future economic and currency crises.[7]

The issue of exchange rate arrangements must be contextualized within its proper paradigm. Nowadays, international and monetary transactions are being increasingly integrated. Such is the stage of this evolution that, in the current environs, international private capital flows finance substantial current account imbalances. This has been brought about by the nature of the financial environment comprising of: low transaction costs as a result of the information and technology revolution, the rapid creation of financial products and countries' liberalization of their capital accounts in order to take advantage of a larger pool of financial wherewithal. Despite the various accolade showered on the virtues of capital flows facilitating the development of emerging economies, a caveat lies in place – the potential for a quick reversal of capital flows. In ASEAN's case IMF economist Michael Mussa (Mussa et al 2000) also propounded that currencies are particularly vulnerable to swings in capital flows and exchange

6. The lessons amalgamated from the Asian crisis are expansive. Yet, this paper gives emphasis on exchange rates and a few other variables related to the topic of the paper.

7. Jeffery Frankel (2000) was more skeptical on this moot point by questioning, " would any exchange rate have prevented the recent economic crisis in emerging markets?". Similarly, Mussa (2000) proclaimed that, "the single most important conclusion of our analysis is that there is no single exchange rate regime that is best for all countries, at all times, in all circumstances…"

rates between the 3 international currencies – the US Dollar, Yen and the Euro.

Mussa's stance on the behavior of the major currencies was supported by the purport of the chief executive of the Hong Kong Monetary Authority, David Yam (1997). The volatility of the said exchange rates (most especially the US Dollar vis a vis the Yen) placed the Balance of Payment figures of some ASEAN countries under considerable duress. The currencies that were linked to the US Dollar, either explicitly or implicitly, where placed in a bind whenever the US Dollar appreciated against the Yen; as some ASEAN countries were also competing (directly or indirectly) with the Japanese and other Asian economies for their exports to the US market. With the unlikelihood of an accord between the countries of the major currencies to keep the volatility to a minimum, it was hinted by Mussa that small economies have to incorporate this factor when selecting an appropriate exchange rate regime.[8] Furthermore, it was suggested that middle range exchange rate regimes (i.e. crawling pegs, adjustable pegs, etc) may not have the corresponding credibility compared to the 2 extreme rate regimes- the pegged and floating rates.

The near consensus, which was fervently questioned by Frankel, was that only extreme forms of exchange rate regimes (i.e. fixed and floating rates) may be sustainable in the current environment was derived from the issue of monetary authorities' maintenance of credibility. Market forces tend to formulate currency valuations and inflationary expectations with the available government policy pronouncements and actions. Prior to the Asian crisis, the middle rate exchange rate regimes (managed floating and crawling pegs) provided the convenience of limited exchange rate volatility under normal times. It was later learned that the regimes promoted a perilous degree of complacency against real foreign exchange risks that suddenly mushroomed in the Asian crisis. In the midst of the debacle, the market forces could not easily decipher the exact policy stance of the governments as to the definitive exchange rate levels to adopt. Hence, an overreaction of the markets followed.

8. The three major economies tend to prioritize domestic concerns over external equilibrium.

There are many critics of the fixed exchange rate regime. Countries that are well integrated into the financial markets (e.g. Malaysia and Singapore) may find that it lacks the necessary flexibility to defend their currency when it is under speculative attack.[9] Yet, a government, due to specific economic objectives, may still chose to adopt this mode. However, the successful operation of a pegged rate system requires that monetary policy be geared towards the attainment of exchange rate objectives. This also means that banks should be held at higher prudential standards, disenabling the government to be the lender of last resort. Furthermore, the strict enforcement of hedging against foreign borrowings is a must (Mckinnon 2000).

In contrast to the fixed exchange rate system, there have been persuasive arguments for the adoption of a flexible exchange rate regime. Advocates have argued that, under normal situations, it is paramount that the system should be allowed to float. This enables borrowers, lenders, and traders engaged in international transactions to assume full foreign exchange rate risks.[10] Moreover, a flexible rate system is favorable for countries that are well integrated in the global capital markets as it allows the government more leeway to respond to speculative attacks. A caveat cited by Obstfeld and Rogoff (1995) and Rajan (1999) is that the flexible rate system has a tendency to lead towards greater volatility of exchange rates in the short term.

In summary, the lessons learned from the Asian Crisis are numerous. The importance of having complementary economic policies and communicating them in a transparent fashion to the public is paramount. The adoption of a pegged exchange rate system, in order to stabilize the level of trade between countries, can only be sustained if the financial system has enough safeguard measures against excessive leverage and foreign exchange exposure of public, private and domestic household sectors. Since a pegged system tends to give a false sense of security against foreign exchange rate risk, it is also incumbent upon the governments to ensure that

9. Singapore was minimally affected by the Asian Crisis because it pegged its exchange rate to a basket of currencies. The credibility of its monetary authority was also left intact.

10. A totally benign neglect of a floating rate system will also not be in the interest of maintaining domestic equilibrium. Foreign exchange markets when left alone may not always reflect economic fundamentals. Subsequently, these large protracted deviations in the value of the currency from its long run equilibrium will have dire economic consequences.

foreign exchange exposure is appropriately insulated through hedging. In addition, the liberalization of capital accounts should be done gradually with the longer-term assets being liberalized first. But even then, with the sophistry of financial instruments currently available in the international financial environment, it would be extremely challenging to delineate long term flows from those of a short term nature.

Studies conducted by Mussa (Musa et al 2000) and Rajan (1999) indicated that pegging against a singular currency would expose some of the ASEAN countries to substantial fluctuation against other currencies (i.e. the US Dollar in juxtapose with the Yen or Euro). Hence, if some ASEAN countries are to be pegged to the Dollar and if the Dollar appreciates, these countries may be exposed to inflationary pressures due to its trade with Japan or the European Union. The same ASEAN countries might also have to suffer indirect or direct competition against the Japanese products exported to the USA.[11] It is in this light that currency basket pegs are heavily recommended for ASEAN countries.

As was stated in an earlier paragraph, the need for formal monetary cooperation among ASEAN has very recently been brought to the fore. While a form of informal coordination of exchange rates may have existed prior to the crisis (there was an informal de facto pegging of exchange rates to the Dollar), a more formal consensus among the behavior of exchange rate regimes should be allowed in order to preclude competitive devaluation. The currency basket peg cited by Rajan and Hoontrakul's "triangular peg" (1998) aim to fix the value of ASEAN currencies against a weighted value of the major currencies. This not only addresses the issue of possible competitive currency devaluations, but it also incorporates the volatility of the major exchange rates against each other. Furthermore, the 3 statistically germane variables cited by Berg and Patillo (high domestic credit growth, an overvalued exchange rate and a high ratio of

11. Most ASEAN products do not compete directly with Japanese goods because of perceived differences in quality levels and targeted market segments. However, the products assembled from transnational companies located in the South East Asia region and exported to the USA are of comparable quality wit the Japanese.

M2 reserves) as strong predictors of currency crises can be collectively monitored and proactively minimmzed.[12] Unsurprisingly, both Rajan and Hoontrakul cited that the aforementioned option could be a move towards a monetary union in the long term perspective. This heightens the possibility of ASEAN solidifying its regional trade pact.

Promotion of Macroeconomic Stability in the Region

One of the more compelling rationales for the call for one currency for the long-term prospect of ASEAN is the promise of a more stable macroeconomic environment. This is made possible through a central monetary authority (as a result of the currency union), which may be able to implement monetary control more efficaciously than individual national central banks. A disciplined, region wide monetary stance can then lead to greater fiscal discipline. Legions of macroeconomic text-books attest to the boon of such an environment. Moreover, the total elimination of foreign exchange risks of countries within the region can facilitate further export and import flows. This can sustain or revitalize economic development among countries concerned. Inflationary pressures that emanate from volatility of currencies will also be drastically minimized. In turn, this should lower interest rates and augur to a lesser cost of capital that should lead to a boost in investments in the region.

A currency integration also complements economic integration (the realization of the vision of ASEAN 2020). With the notion of a free market allowed to operate in a wider geographic area, businesses will situate themselves in places where they can gain competitive advantages (the provisions for greater labor mobility and capital resources movement have also been incorporated within the ASEAN 2020 Plan). Production costs will decrease as a result of

12. This mode of cooperation cohesively blends with one of ASEAN's principles on the sprit of constructive engagement.

more freedom in trade, economies of scale, and optional choices for investment. This not only leads to more gains and economic growth, but to enhanced consumer welfare, as well.

Capital Market Reforms

The presence of one currency would putatively lead to capital market reforms, in order to maximize the full economic benefits that may befall on the whole region. While the current state of ASEAN capital markets is on its, relatively, infantile stage (with the notable exception of Singapore, which has one of the biggest capital markets in Asia) economic and currency integrations are meant to unravel improvements in the regional financial markets. The elimination of intra-regional exchange rate risks should lead to consolidation of financial markets. The effects of best practices system should also bolster regional savings, which can be used for further investments and commercial expansion. The combined size of the integrated financial markets will also insulate, to a certain degree, the region from central external shocks. Thereby, allowing the central monetary authority more control over its monetary policy at the international level.

Conceptually, this free flow of capital mobility also renders the governments financing of deficits easier. According to Masson and Taylor (1993), this introduces another degree of freedom for governments within the region to finance their fiscal budgets. However, the respective countries will no longer have the same captive markets (previously, their domestic markets) for their debts.

Literature Review of the Optimum Currency Areas

Robert Mundell (1961) is the internationally recognized harbinger of the theory of optimum currency area, in contemporary times. He defined such an area to be an economic unit comprised of regions affected symmetrically by disturbances and between which labor and other factors flowed freely. More specifically, he expounded that when regions within a prescribed area experience that same shocks there existed no overt advantage in the existence of relative price differentials. In places where a higher level of unemployment resided, Mundell opined that the free movement of labor towards regions experiencing higher economic growth would result. With the free movement of labor (on the assumption that prices are generally elastic), the adjustment of exchange rates as a means of restoring external competitiveness and eliminating external balances becomes obviated. Moreover, the movement of labor from regions of high unemployment to areas of low unemployment is supposed to bring about a convergence of wages and other related costs. Only when savings in transaction costs exceeded the rise in adjustment costs did the merging of two countries to share one common currency become economically justified.

In order for an optimum currency area to take effect, other noted economists gave cognizance to the need for other factors (other than movement of free labor) to be present (Mckinnon in 1963 and Kenen in 1969). These are: the openness and size of the economy, the degree of commodity diversification, price and wage flexibility, the similarity in experiences of economic shocks, and the free movement of capital.

The more open the economy, and the smaller its size, the more it is likely to be a candidate for an optimum currency area. An open and small economy tends to imbue the exogenous variables of its much larger trading partners. Hence, a country like the Philippines will experience an import of inflationary bias if the USA decides to increase its interest rates to

address its domestic situation. In order for the Philippines to stem the outflow of capital, it may have to raise its nominal interest rates, as well, even though its inflation rate is at a manageable level. The effect of such a policy will unnecessarily restrict the growth of the Philippine economy. A small country's imbrue of exogenous variables will then mitigate the full effects of its domestic monetary policy.

A country with a certain degree of commodity diversification is also viewed as a better candidate to an optimum currency area. The rationale behind this lies in the level of insulation that a country may provide against a variety of economic shocks. An example is when a country that heavily depends on its agricultural products for its exports experiences a massive downtrend in foreign exchange earnings due to a slump in international prices of basic commodities. In the event that there is a prolongation of low international prices of commodities, this may force an adjustment in relative prices via adjustment in the exchange rate. The more frequent the adjustments, the more unstable an economy may become.

The issue of wage and price flexibility may diminish the need for exchange rate adjustments. With the presence of wage and price flexibility between regions, the likelihood of economic imbalances associated with unemployment in one region and inflation in another can be significantly mitigated. In this regard, an area that experiences greater economic development over other areas will experience inflow of labor movement from economically underprivileged areas. The law of supply and demand will then prevail with a lowering of wage prices and unemployment in the poorer regions and an increase in wage prices and employment in the more affluent regions. The cited economic scenario, in theory, will not require an adjustment of exchange rates.

Similarity in experiences of economic shocks, even though its effects may seem subtle, can have a significant impact on a unified currency area. This criterion is usually ascribed to the

production structures of countries in a region. The more similar the production structure of countries, the more likely it will possess akin terms of trade shocks. With this set up, the effectiveness of exchange rate adjustments may be negated, most especially if countries in a region are trade dependent on each other.

The papers by Frankel (1993), Eichengreen (1992), Kennen (1969), Krugman (1993) point to the assertion that the more intense the trade relation between two countries, the more beneficial it will be for monetary integration. This is because the intensity of trade is believed to affect the nature of business cycles of each concerned country. Closer international trade is believed to result in countries becoming more specialized in the production of goods in which they have a competitive advantage. This then leads to tighter correlation in business cycles. Moreover, it must be noted that membership in a regional trading arrangement is also believed to be strongly associated with more intense trade activity.

Capital mobility also has its special role in a unified currency area. In theory, high mobility of financial capital enables the transfer of capital flow from one region to another. This movement may be used as a source to finance differences between national savings and investment. Often times, there are numerous investment opportunities in less developed regions that give higher returns (but which also carry higher risk premiums).

As the years progressed, numerous studies were made on the theory of optimum currency area.[13] Based on the experiences of actual currency unions, it has been postulated that other criteria may also propel the warrant for a currency union. Countries with a dire need to import strong monetary stability are usually besieged with a historical baggage of lack of credibility on its monetary authorities. This is the case for countries with a series of inflationary troubles that came about as a result of uncontrolled government spending.

13. IMF Financial Statistics Yearbook 2000 makes particular mention of the following currency union arrangements: the Euro Area, Central African Economic Monetary Community, West African Economic and Monetary Union (WAEMU), and the East Caribbean Community (ECCM).

Notwithstanding the 4 pillars of a currency area (free movement of labor, goods and services, capital and synchronization of economic cycles), the issue of free movement of economic variables may not always be pragmatically present. As with the case of labor movement, it may not be socially expedient for the unemployed of one region to transfer to another region experiencing faster economic growth. European economists have noted this and have attributed such a phenomenon to cultural impediments, institutional peculiarities, differences in industry structure and skills of the labor force of countries within a region. Obviously, with the slight hamper of free movement of economic factors, one region may end up growing faster that another area. In another situation, wherein regional specialization in goods is no longer in demand, there may not be enough economic incentives for productive investment. In the event that labor and investment eventually move out of the area, it is quite doubtful that the optimum currency area, by itself, will lead to an expedient diminishment of underdevelopment. If this lingers, it may cause strains in how monetary policy is exercised in the whole currency area. To remedy such an eventuality, the issue of fiscal transfers comes into play.

The policy of fiscal transfer, or re-distributive policy, aims to accelerate productivity gains in economically "un-favored" regions. This policy is meant to minimize the social and political pressures that may arise from less developed regions to break away from a currency union area. [14] It is likely to be more important the less responsive migration is to differences in regional wage and unemployment. But as regards to this concept, the capacity of less developed regions to avail of fiscal transfer should be prudently tempered by the present value of taxes it will be able to collect within a given time period. Otherwise, such transfers may discourage factors of production, which are no longer competitive, from moving out of the region. In effect, this can distort economic incentives.

The theory of optimum currency area is generally bifurcated into 2 areas of thought. The

14. Sala-I-Martin and Sachs (1992) showed the importance of the transfer system in addressing economically depressed regions in the USA.

first school of thought delves on the necessity of economic convergence of the aforementioned criteria. This arises from the belief that monetary integration will not be sustainable unless it is preceded by general economic integration. Otherwise, the whole currency region may be burdened by economic and social tensions. On the other hand, the second school of thought ardently abides by the theory that closer economic and monetary integration is likely to lead to an increased economic convergence. The resulting free movement of goods and other economic variables will lead to an equalization of factor prices and per capita output.

Roles of a Central Monetary Authority and Fiscal policy

The roles of a central monetary authority and fiscal policy were not integrally part of the optimum currency area in its early stages of conceptualization. However, their roles are now widely recognized as indispensable towards the sustainability of such an economic arrangement. As regards to a central monetary authority, its mandate of prioritizing price stability should be unequivocal. Its dependence from political influence is such that its reputation is left unblemished at al times. Otherwise, lack of credibility can lead to the very antithesis of macroeconomic stability, which increases the likelihood of financial crisis setting in. When it is apparent that the central monetary authority cannot commit itself to price stability, the private sector will recognize this and infuse inflation into its expectations that labor would demand higher wage settlements and investors in government bonds would demand higher interest rates to compensate for expected inflation. A caveat here is that since the central monetary authority's role is prioritizing internal equilibrium, expectations of currency volatility against other currencies (outside the area) can be expected to be quite high. Moreover, when some countries

in the region progress faster than the others, a conflict of interest may arise when it comes to setting interest rate policies.

The fiscal policies of countries in a currency area zone should also be closely monitored. A large country or a group of countries that undertake lax fiscal spending will usually affect the whole currency area in the form of an outflow of savings. The over issuance of government debt will lead to a rise in current account deficits. Since excessive government spending will lead to a downgrade in its sovereign rating, and it cannot print money, a throng of expectations from the investment community will find the government's position to be unsustainable. This means that at one time or another there will be a correction, a scenario that any investor does not cherish being caught in. Once this happens the central monetary authority might be compelled to hike the interest rates to stem the outflow of capital. This will then affect the overall economic growth and investment prospects of the whole currency area.

Benefits of an Optimum Currency Area

The most overt benefit that can accrue to countries in a unified currency zone is related to the magnitude of trade increase after the unification. The deletion of foreign exchange risks within a region, the diminishment of information and transaction costs, and the benefits of price stability should lead to pronounced increase in intra-industry trade. In addition, Eichengreen (1991) stressed that commodity prices are expected to move closely together due to the effacement of border taxes and other financial determinants of share prices should also converge. Subsequently, enhancement and prolongation of intra-industry trade leads to industry specialization among countries in a currency zone.[15]

A study by Frankel and Rose (2000) provided statistical evidence that currency unions stimulate trade. From a data set of 200 countries, they estimated that trade between countries

15. It must be noted that a currency union may also lead to inter industry trade (trade within the industry), which may not result in the specialization of industries in different countries.

belonging to a currency union more than tripled. More specifically, an approximation that for every 1% increase in trade (relative to GDP), there is a rise in income per capita by 1/3 of 1% over twenty years. Hence, the results of their study on currency unions were: a currency union promotes bilateral trade, it promotes overall openness (with no evidence that the increase of trade has come at the expense of non-member countries) and it also increases output. However, the researchers were also quick to qualify their findings.

The conclusiveness of their empirical analysis hinted that it mattered with whom one country enters a trade pact with another. Hence, it was most probable that members of a currency union should be composed of natural trading partners by virtue of size, proximity and other related factors. The researchers also accentuated that their studies did not cover the length of time in which the countries in the currency zones were able to reap the aforementioned trade benefits.

A currency union also has incalculable potential in harnessing internal and external economic competitiveness. The purported transparency of intra-regional monetary policy coordination (in terms of the determination of intra-regional core interest rate in juxtapose with a certain degree of intra-regional fiscal policy coordination) should provide for the basic free market tenets that will redound to the maximization of economic gains at a microeconomic level. This simply means that business corporations will be forced to compete more aggressively, leaving the most financially viable ones to outwardly project their competitiveness outside the currency area.

The complete elimination of trade barriers and minimization of transaction costs will also provide economic enticements for foreign direct investment. In ASEAN's case, the concept of one price spread out among 10 countries with a combined current population of approximately 500M people and an agglomerated GDP of US $600 B (December 1999 figures) can actually serve to provide a viable recourse to the Chinese and Indian markets. With the exception of a

few Southeast Asian countries, the rest currently have a savings rate that may not be enough to fast forward the locomotive engine of growth. Hence the economic model of temporary reliance on foreign investments may be a more feasible approach. Furthermore, among the slew of economic benefits that foreign direct investors may bring: management skills, technical know how, and the multiplier effect from the jobs generated may, arguably, be the most important.

Costs of the Optimum Currency Area

Much extol has been meted about the virtues of an optimum currency area that it may behoove the uninitiated to eagerly vouch for membership in a currency club. In all actuality, if a country does not have the necessary institutions, systems, and sustainable political will to complement the sharing of a currency with other countries then its membership in such a clique may not be prolonged (this will also threaten the stability of the entire currency zone). [16] Membership in a currency area will immediately require the complete nullification of its own independent monetary policy.

The loss of monetary independence is a very serious macroeconomic issue. It severely constrains the degree of policy actions that a government can commit in order to immediately address economic shocks. This is unlike a situation where a country has its independent monetary policy. The government can immediately riposte an external economic shock by adjusting interest rates and changing foreign exchange parities than resort to much longer adjustments in prices and wages. In addition to foregoing independent monetary policy, a government also gets to give up income derived from printing money (seignorage). It will also be limited from being able to extensively use fiscal policy as a macroeconomic tool.

As was mentioned in earlier paragraphs, even though fiscal policy remains to be within the domain of individual states in a currency region, a government's discretionary usage of fiscal guidelines is limited. This is because a lax fiscal policy may engender the increase in interest rates by the central monetary authority to stem the outward flow of capital.

16. This goes back to the argument that no currency regime is appropriate for all countries at all times.

In the short run time frame, the burden of adjustments towards a currency area usually befalls on the smaller and weaker economies. Based from the experience of the European Union, a currency zone normally requires the pegging of rates on a nominal anchor currency, which, by convention, is the strongest and most stable currency in the area.[17] This means that in order to comply with several accompanying convergence criteria (i.e. inflation rates, a cap on government budget expenditures, etc.), the transition phase may involve a rise in unemployment. This is if wages do not adjust in higher inflation countries.

The issue of the nature of economic shocks that a country is historically predisposed towards is another important factor to be considered. There are usually 2 types of economic shocks that hit a country: an industry specific shock and a country specific shock. The industry specific shock, granting that an economy is moderately diversified, will usually be effaced at a country level. However, if shocks are country specific the central monetary authority may be forced to change the exchange rate levels in order to avoid a spillover of loss of confidence in the currency area. Hence, if countries in an optimum currency area are subject to specific economic shocks, their economic cyclical positions may not be fully synchronized. This may mean constant adjustment of monetary policy, which makes the credibility of the whole currency area suspect.

A hypothetical instance about the dangers of shocks is when members of a union are affected asynchronously. Competitive pressures may build up towards the discontinuation of monetary and currency integration. Such a scenario may occur once the central monetary authority fails to act resolutely to the needs of a country or group of countries (because of the size of the country/countries concerned, in relation to the overall size of the currency region) in order to address the stability of the entire currency area. When this happens a societal clamor for the respective governments to act in the interests of their localities may occur. In effect, the

17. The strongest and most stable ASEAN currency is the Singapore Dollar. However, Singapore has constantly asserted its reservations abut being a nominal anchor currency because of the enormous responsibilities involved.

issue of currency unions becomes more critical after an integration of currencies. This brings to fore the issue on the sustainability of a currency union.

In relation to the issue of shocks, empirical studies conducted by Engel and Rose (2000) and Frankel And Rose (1998 and 1996) revealed that business cycles are more tightly synchronized for countries that trade more with each other. Engel and Rose made their conclusions to contradict the theoretical approaches by Eichengreen (1992), Kenen (1969), and Krugman (1993) that closer trade integration results in countries having more asynchronous business cycles. This is ascribed to the fact that Eichengreen and the others believed that closer trade would lead to economic relations according to specialized advantage. Despite the empirical revelations, it is best to keep in mind the controversy of the issue.

Lessons from the European Union

Raison d'être

As the author mentioned in the introductory part of the paper, the experience of western Europe leading to the European Union has played a great role in captivating the minds of government policy makers, on various continents, to consider forging closer economic ties with other countries that may lead to eventual monetary and currency integration. Hence, it goes without saying that the unfolding saga of the Euro, together with the developments in the E.U. to make the zone the most competitive economy in the world by 2010, is closely watched.

There are various accounts on the underlying machinations concerning the integration of economies in Western Europe. Certain authors have attributed the main cause of the economic integration, purely to the trade benefits derived from having a larger market and to collectively reconstructing Western Europe's economy. Yet, there are others authors who narrated that the economic integration was meant to lay the bedrock for political integration.

The strong assertion for eventual political union stems from some of the wordings of the Treaty of Rome (1958), wherein the agreement aimed to achieve an " ever closer union among the European peoples". Believers of this concept went further to allege that economic integration was meant to be a means to ensure that neither France nor Germany (the 2 strongest countries on western continental Europe) invasively spread its dominance on the region at the expense of the other. Some even went to say, that the union was meant to preclude another war (it must be recounted that the recent world wars emanated from Europe).

The 1958 Treaty of Rome specifically aimed to conceive the European Economic Community (EEC). Its primary purpose was to instigate the economic amalgamation between France, Germany, Italy, and the Benelux countries (Belgium, Luxembourg, and the Netherlands). The agreement took effect on 1 July 1968.

According to the paper of Vanthor (1998), by 1969 the 6 countries agreed that a viable way to materialize economic integration was through the formation of an Economic Monetary Union (EMU). However, based on the Werner Report, this union was to be attained in stages, starting on 1 January 1971. The Werner report indicated that in the final stage of the EMU, monetary and budgetary functions were to be transferred from the respective countries to a central authority.

The movement to the various stages of the EMU did not go unimpeded. In the early 1970s (which also saw the collapse of the Bretton Woods Agreement) a lack of coordination on economic and monetary policies ensued. This impasse was finally abrogated when France and Germany established the European Monetary System (EMS) in 1978.

Vanthor described the EMS to be the "pulling power" of the European integration process. The EMS revolved on the Exchange Rate Mechanism (ERM).[18] By 1989, the resolute steps towards one currency was sealed by concrete proposals for the Delors Report, which sought the realization of the EMU in 3 stages. The Delors Report was also used as the predication towards the formation of the European Union (also known as the Maastricht Treaty).

18. The ERM was meant to highlight the centrifugal role of the European Currency Unit (ECU).

The 3 stages of the Delors Report also did not proceed smoothly. In the first stage (which started on 1 July 1990) of the EMU, the German unification threatened the parities of certain exchange rates. This exacerbated to an extent wherein interest rates were increased, making the exchange rates of some countries overvalued. On August 1993, the currency band of the EMS was expanded from 2.25% to 15% on both sides of the central rate (with the exclusion of the German Mark and the Dutch Guilder). Stage 2, which aimed to stabilize prices and promote solid public finances, was then implemented on 1994, along with the establishment of the European Monetary Institute (the precursor of the European Central Bank). On the last stage, the European Central Bank issued the Euro on 1 January 1999.

Convergence Criteria

Certain European countries, most especially Germany, were particularly concerned with the stability and the credibility of the Euro. It was jointly decided that in order to assuage, and preempt foreseeable macroeconomic imbalances, a certain magnitude of economic convergence had to be achieved. Since the German Mark was the paragon of European currency stability, it was made the nominal anchor for other concerned currencies. This meant that other European countries had to adjust their policies to Germany, even though for some it was inconsistent with their national objectives.

The Maastricht Treaty of 1993 gave specific conditions for countries that wished to participate in the unification of currencies. 5 economic factors were identified to be the value drivers behind a credible Euro (see table below). In view of the convergence criteria, it must be accentuated that coutries were not easily able to comply with the stated requirements.

In the paper of Vanthor (1998), it was cited that the government budgetary criteria was the hardest to comply with. In fact, even the 2 biggest economies, France and Germany, experienced difficulty. By 1997, the average public debt was still at 72.7 % of GDP when it

should have been at 60%. This was also after the Pact for Stability Growth of 1995, wherein countries had to pursue sound public finances that were geared towards a balanced budget or surplus in the medium term. The Pact also gave specific sanctions for non-compliance with the stated limits. It consisted of non-interest bearing deposit between 0.02 and 0.05 % of GDP, applicable not only to members of EMU, but also to countries that planed to participate at a later date.

Convergence Criteria of the Maastricht Treaty

Inflation	1.5% above average of 3 countries with lowest inflation rates
Long term Interest rates	2% above the average of 3 countries with the lowest long term rates
Government deficit	3% of GDP or close to 3% of GDP
Government debt	60% of GDP or a satisfactory reduction towards 60% GDP
Exchange rate	Within the normal "ER" for at least 2 years without devaluation on a country's initiative

Taken from the paper of W. Vanthor (1998)

* Greece, the United Kingdom, and Sweden did not participate in the ERM

** Exchange Rate Mechanism I comprised of a band on 2.25% on either side of the central rate. After the German unification, it was widened to 15%, with the exception of the Deutsche Mark and the Dutch Guilder

The over indulgence in fiscal discipline was meant to foster a certain level of monetary cooperation and behavior. A country's budget deficit is ordinarily financed by the issuance of debt in the capital market. In the case of EMU, the printing of money was strictly discouraged. If the deficit became too high, a country would not be able to finance it or it would be able to but at higher inflation rates, which was in contravention of another given requirement.

Clamor for Political Union

Although this issue is considered diplomatically sensitive, some economists are insistent

that a currency union will only be sustainable in the long run if a political union is eventually realized. Individual countries cannot indefinitely be given the discretion to plot their budgetary policies. Much cognizance has already been given to the value of fiscal stability in maintaining monetary and price stability. Hence, in the long run, a supra-national institution should also be in charge of formulating fiscal policies. This may mean that the European Commission would be tasked with more responsibilities.

Current Performance of the Euro

After much fanfare on the launching of the Euro last 01 January 1999, its performance has been rather mixed. In the paper of Coppel (Coppel et al. 2000) the inflation rate has managed to stay within the prescribed limit. There was also a decline in unemployment rate (the lowest in 7years). However, the thorn of the issue has been its steady decline against the US Dollar. Although other economists have rallied to the defense of the Euro by citing that it was never the original objective of the EMU to rival the Dollar, the developments still have microeconomic implications (like the steady outflow of capital, which could have been invested in the zone). This has revived debates on how well foreign exchange markets reflect macroeconomic fundamentals.

One hypothesis behind the dismal performance of the Euro, in juxtapose wit the US Dollar, lies in the purview of structural rigidities. It may be recalled that in Mundell's original theory on the Optimum Currency Area emphasis was given on the need for free movement of capital, labor, products, services, and flexible prices. In the case of the euro-zone, most of the cited variables still have to be emancipated. Despite the abolition of legal barriers, differences in cultural background, social pension schemes (which makes it difficult to compare different wage levels), and other work related regulations have discouraged labor migration. As a result of labor

immobility, a demand shift will tend to increase unemployment in one region. If wages are not that elastic, then the whole price structure of that certain region becomes rigid.

The free movement of capital has yet to be achieved. Purported benefits that could be realized with the large- scale integration of capital markets lie in investors enjoying greater opportunities for the diversification of their portfolios. Businessweek (15 January 2001) featured an article that depicted the eurozone as having 30 regulators and 20 stock exchanges. This means that if a French company bids to list in Italy, the Italian rules will prevail. Moreover, when the French, Netherlands, and Belgian stock markets merged last year to form Euronext, it only created one "corporate umbrella" for the separate markets.

As regards to previously cited debates on whether economic integration should precede currency integration or vice versa, current developments pertaining to the possible accession of Eastern European countries promise to shed light on the matter. There is a crescendo on the moods of European economists to the need for a heightened level of economic integration prior to entry to EMU. If their entry to the monetary union is precocious there will be a tendency for the said countries to experience above average inflation rates. This is because eastern European countries will try to catch up with their western counterparts; wherein, higher inflation will be a result of increases in wages and productivity. Such an assertion was likened to the case of Ireland and Spain, whose economies seem to be converging with the rest of European countries but at the expense of above average inflation rates. Yet, if the European Central Bank relents to higher levels of inflation, it will be at the expense of its credibility.

In summary, the relatively sluggish pace in which structural reforms have proceeded may be one contributory factor to the performance of the Euro. This may be due to investors' circumspection on the rate of growth of the eurozone. However, more conclusive findings can be ascertained in the course of time.

Time Schedule for European Economic Integration with Inclusion of ASEAN Events

	No tariffs & Quota on Intra-trade	Common External Tariff	Free Movement of goods, services, and factors of production	Harmonization of economic and monetary policy	Centralization of Economic and Monetary policy
Formation of Formal Groupings	ASEAN 1967 *				
Free Trade Area	EFTA 1960 Common Effective Preferential Tariff Scheme of ASEAN (1962)*				
Customs Union		EEC (1957 – 1968)	ASEAN Vision of 2020 (1997)*		
Common Market			Single European Market (1986 – 1993) ASEAN Vision 2020 (1997) *	EMS (1979 – 1999)	
Economic and Monetary Union					EMU (1/1/99)

Source : Healey (1995) from the Treaty of Rome to Maastricht , in N.M.(ed) the Economics of the New Europe, London: Routledge

* Not part of the original tableaux of Healey. Inserted by the author for a quick comparison of the two organizations. ASEAN events and dates should only be interpreted from the horizontal axis, not applicable to the vertical axis. This is except for ASEAN 2020 Vision.

Quantitative Analysis Segment

Objectives:

The quantitative portion of this paper aims to determine whether the economic conditions in the countries of the south- east Asian region are currently in conformance with the optimum currency area theory and can somewhat fit into the criteria set by the European Monetary Union as a condition for entry into the single currency zone. The underlying hypothesis here being, if the countries can somewhat be consistent with the aforementioned conditions then the idea of monetary union, with its numerous benefits, among south east Asian countries may not seem to be a far fetched idea.

First Equation

$$\text{Log (Tij)} = \alpha + ß1 \text{ Log (GDPi GDPj)} + ß2 \text{ Log (GDPi/ Popn.i GDPj/ Popn. J)} + ß3 \text{ Log (Distn.)} + ß4 \text{ (Adjacent)} + \gamma \text{ (ASEAN)}$$

Pooled data set:

$$\text{Log (Tij)} = \alpha + ß1 \text{ Log (GDPi GDPj)} + ß2 \text{ Log (GDPi/ Popn.i GDPj/ Popn. J)} + ß3 \text{ Log (Distn.)} + ß4 \text{ (Adjacent)} + \gamma \text{ (ASEAN)} + \gamma 2 \text{ (ASEAN 1985-1980 periods)} + \gamma 3 \text{ (ASEAN 1990-1980 periods)} + \gamma 3 \text{ (ASEAN 1995-1980 periods)} + \gamma 4 \text{ (ASEAN 1998-1980 periods)} + \lambda 1 \text{ (Period 1985)} + \lambda 2 \text{ (Period 1990)} + \lambda 3 \text{ (Period 1995)} + \lambda 4 \text{ (Period 1998)}$$

The first equation is more popularly known as the Gravity Trade Model. This model was taken from the papers of Jeffrey A. Frankel and Shang Jin Wei (1995) and the paper of Frankel (1992). [19] It was formulated to determine if trade is biased towards intra-regional partners within a trade bloc, in this case the south-east Asian trade bloc. Nominal GDP is used. The countries used in the data set are the 10 ASEAN member countries, Australia, Papua New Guinea, Republic of Korea, Japan, China, Taiwan, and Hong Kong. It may be observed that all countries concerned lie in the Asia Pacific Region. All figures, except for the last two variables, which are binary, were taken from the IMF Direction of Trade Statistics Yearbook (2000), the International Financial Statistics Yearbook (2000), and the National Geographic World Atlas. The time frame selected was a series of 5- year end periods from 1980 to 1999.

Even though the paper of Jeffrey Frankel suggests that the more intense the trade relationship (or planned relations) between two countries the more beneficial it will be for the countries concerned to have a monetary integration, the main objective of this paper (with regards to the first equation) is to derive the effects of the residual γ in terms of its significance through the years.

Second Equation

$$\underset{\text{SWFr.}}{\frac{\%\,\Delta \text{ local currency}}{}} = \alpha + \underset{\text{SWFr.}}{\beta 1\ (\%\Delta \text{ US\$})} + \underset{\text{SWFr.}}{\beta 2\ (\%\Delta \text{ of Yen})} + \underset{\text{SWFr.}}{\beta 3\ (\%\Delta \text{ of DM})} + \underset{\text{SWFr.}}{\beta 4\ (\%\Delta \text{ Spre. \$})} + \varepsilon$$

The objective of this equation, taken from the paper of Rose and Engel (2000), is to identify which countries in the ASEAN region tried to stabilize their country's currency with that of the major international currencies. In the aftermath of the Asian crisis, economists have

19. The gravity model was also used by Linneman (1966), Hammilton and Winters (1992), Eichengreen and Irwin, Rose and Engel (2000)

suggested at the possibility of countries adopting an explicit currency basket peg (weighted on the currencies of major trading partners) in order to arrive at a somewhat steady currency environment. If a majority of countries are discovered to have similar weights on major international currencies, then the region's economies can form a sort of monetary cooperation that may eventually lead to a currency union in the long run. However, an important point to consider would be if too much weight is placed on one currency this may entail the volatility of the ASEAN currency against the movement of other residual major currencies.

The Singaporean Dollar is included in the equation because the IMF Direction of Trade Statistics 2000 indicates that Singapore has the most extensive regional trade presence of any ASEAN country. Hence, it may be possible that its trading partners may have indirectly tried to stabilize their currencies with that of Singapore. In turn, if Singapore's currency is gauged to be relevant throughout the region, it can be a possible nominal anchor base.

All cited currencies are with reference to the Swiss Franc (due to its reputed stability). The data set is derived from the International Financial Statistics monthly nominal series of the 1999 CD-Rom version. The time span covered is from 1980 to 1998. No data was available for Brunei and Vietnam. Nominal exchange rates were used.

Third Equation

$$\text{Corr (S) ij} = \alpha + \beta \text{ ASEAN} + \varepsilon$$

The third equation, taken from the paper of Rose and Engel (2000), aims to identify the degree of similarity in economic disturbances that the countries in the region may have experienced. The theory of optimum currency area asserts that countries that share similar economic shocks may have lower adjustment costs as to the conduct of independent monetary policy than countries that experience economic disturbances at varying periods. Thus, the tighter

the correlation of concerned currencies, the higher the level of candidacy for the ASEAN optimum currency zone.

The data set is derived from the set of countries used in the first equation. Annual real GDP (GDP/ GDP Deflator) was used.

Application of the Convergence Criteria of the Maastricht Treaty on ASEAN Setting

Inflation Log Δ (CPIi / CPIi-t)	1.5% above the average of 3 countries with the lowest inflation rate
Government deficit	3% of GDP or close to 3% of GDP (nominal)
Long term interest rate or thru use of 3 yr. average short term rates (due to term structure)	2% above the average of 3 countries with the lowest long term rates
Government Debt	60% of nominal GDP or a satisfactory reduction towards 60% nominal GDP
Exchange rate	Within the normal "ER" for at least 2 years without devaluation on a country's initiative

Taken from paper of W. Vanthor (1998)

- Greece, the United Kingdom, and Sweden did not participate in the ERM.
- Exchange Rate Mechanism I comprised of a band on 2.25% on either side of the central rate. After the German unification, it was widened to 15%, with the exception of the Deutsche Mark and the Dutch Guilder.

The use of the convergence criteria of the Maastricht treaty on the ASEAN setting evidently leads to the argument that the political and economic circumstances between the two geographic blocs are incongruous. Hence, their inapplicability. While this may be true, the author chose the said set of criteria as a rough gauge, and to support the aforecited equations, to see what degree of convergence, if any, exists among countries in the South-East Asian region.

Findings on Quantitative Application

Equation 1: Gravity Model (1980)

C	GDP	GDP/Cap	ASEAN	Adjacent	Distance	R-Sq.	Adjusted R-sq.	# of Observations
-11.099 4.3204	0.7738 *** 0.1055	0.5326 *** 0.1041	1.8695 ** 0.7458	-1.1653 * 0.6443	-0.8795 ** 0.3887	0.6889	0.6491	45
-18.365 3.0357	0.7651 *** 0.1107	0.5418 *** 0.1093	2.6929 *** 0.6837	-1.1202 0.6764		0.648	0.6128	45
-18.848 3.0856	0.7677 *** 0.1131	0.5651 *** 0.1107	1.8958 *** 0.4967			0.6238	0.5963	45

* Significance Level of 0.10
** Significance Level of 0.05
*** Significance Level of 0.01

Numbers on the first row indicate the size of the coefficient.
Numbers on the second row indicate the size of the standard error.

Equation 1: Gravity Model (1985)

C	GDP	GDP/Cap	ASEAN	Adjacent	Distance	R-Sq.	Adjusted R-sq.	# of Observations
-5.1528 3.1062	0.6617 *** 0.077	0.4776 *** 0.084	0.7561 0.6287	-0.7311 0.5699	-1.2024 *** 0.2939	0.7668	0.7372	44
-14.676 2.4364	0.6475 *** 0.0911	0.4670 *** 0.0994	1.8595 *** 0.6728	-0.6834 0.6750		0.6654	0.6312	44
-14.313 2.4105	0.6335 *** 0.0901	0.4619 *** 0.0993	1.3151 *** 0.4045			0.6567	0.631	44

* Significance Level of 0.10
** Significance Level of 0.05
*** Significance Level of 0.01

Equation 1: Gravity Model (1990)

C	GDP	GDP/Cap	ASEAN	Adjacent	Distance	R-Sq.	Adjusted R-sq.	# of Observations
-6.7729 3.7574	0.7281 *** 0.1131	0.1459 0.0964	0.851 0.7146	-0.5326 0.7169	-0.622 0.4039	0.4591	0.4253	86
-11.422 2.2562	0.7127 *** 0.1136	0.1354 0.0971	1.1968 * 0.6841	-0.2089 * 0.6912		0.4431	0.4156	86
-11.336 2.2259	0.7085 *** 0.1122	0.1351 .0965	1.0686 ** 0.5338			0.4425	0.4221	86

* Significance Level of 0.10
** Significance Level of 0.05
*** Significance Level of 0.01

Equation 1: Gravity Model (1995)

C	GDP	GDP/Cap	ASEAN	Adjacent	Distance	R-Sq.	Adjusted R-sq.	# of Observations
-10.369 2.3860	0.9067 *** 0.0788	0.157 ** 0.07	1.4445 *** 0.5074	0.3617 0.4854	-0.7350 *** 0.2307	0.7305	0.7225	81
-15.723 1.793	0.8879 *** 0.0831	0.1408 * 0.0736	1.826 *** 0.523	0.6748 0.5032		0.6940	0.6779	81
-15.786 1.8016	0.898 *** 0.0832	0.1322 * 0.0737	2.277 *** 0.4012			0.6868	0.6746	81

* Significance Level of 0.10
** Significance Level of 0.05
*** Significance Level of 0.01

Equation 1: Gravity Model (1998)

C	GDP	GDP/Cap	ASEAN	Adjacent	Distance	R-Sq.	Adjusted R-sq.	# of Observations
-14.11	0.887 *** 0.1217	0.4001 *** 0.1386	1.04787 0.6678	1.1368 0.6941	-0.7026 * 0.3946	0.8897	0.8572	23
-20.322	0.9557 *** 0.1222	0.3222 ** 0.1393	1.2872 * 0.6924	1.4399 * 0.7122		0.8691	0.84	23
-21.020	1.0139 *** 0.128	0.2813 * 0.1486	2.1378 *** 0.5929			0.8394	0.814	23

* Significance Level of 0.10
** Significance Level of 0.05
*** Significance Level of 0.01

Equation 1: Gravity Model (1980 - 98)

C	GDP	GDP/Cap	ASEAN	Adjacent	Distance	R-Sq.	Adjusted R-sq.	# of Observations
-12.238 2.351	0.8808 *** 0.068	0.2635 *** 0.0593	1.49868 *** 0.40819	-0.2885 0.3786	-0.5963 ** 0.2404	0.5894	0.57667	167

* Significance Level of 0.10
** Significance Level of 0.05
*** Significance Level of 0.01

Observations on the First Equation

At the 5-year end periods of 1980 and 1985 the ASEAN predictor, is found to be significant (using a p-value of either 0.01 or 0.05). However, it must be noted that in 1985 only after removing the variable on distance did the ASEAN predictor become significant. Aside from the significance of the ASEAN predictor on both time periods, the size of the coefficients (1980 = 2.6929, 1985 = 1.8595) attest to the importance intra-regional trade).

The 1990 end year period showed a diminishment in the size of the coefficient and the level of significance of the ASEAN variable. Only after the variables of "adjacency" and "distance" were discounted did the ASEAN predictor become significant.

It is also interesting to note that the adjusted R-square was drastically reduced when compared to the previous five-year end periods (1980 = 0.6491, 1985=0.6312, 1990 = 0.4156). Closer examination of the trade policies of ASEAN countries at that time may reveal that the countries concerned concentrated on increased national output for exports to countries outside the region.

By 1995, the ASEAN predictor regained its relevance. This time, even with the presence of the distance variable (which is also statistically significant), the ASEAN predictor was significant to a level of p-value equal to 0.01. The adjusted R-square also increased to 0.7225. This is also the period when the ASEAN group of countries was conceptualizing the ASEAN 2020 Vision for a more unified region (later ratified in 1997).

The 1998 figures are slightly inconclusive as the number of observations were only 23, and the period observed was immediately after the outburst of the Asian crisis. Nevertheless, after removing the variables of distance and adjacency, the ASEAN predictor became significant to a p-value of 0.01.

In terms of the pooled data set, the ASEAN predictor proved to be statistically significant to a p-value of 0.01. This was even in the presence of the variables for adjacency and distance.

Equation 2 Currency Regression Model

Compiled Results of Currency Regression

ASEAN Currency	DM	Yen	S'pore $	US $	Adjusted R-sqre	# of Observations	Time Duration
Cambodia	-0.978 1.0233	0.145 0.3566	0.165 0.6459	1.502 *** 0.5581	0.222	83	1992-98
Indonesia	-0.009 0.035	-0.458 ** 0.2271	4.257 *** 0.4691	-2.257 *** 0.3586	0.3222	227	1980-98
Laos	0.028 0.1285	-0.238 0.8342	1.364 1.7234	0.158 1.3175	0.0027	227	1980-98
Malaysia	-0.005 0.0093	-0.0136 0.0605	1.319 *** 0.1250	-0.182 * 0.0956	0.6985	227	1980-98
Myanmar	0.007* 0.0044	0.181 *** 0.0285	0.009 0.059	0.514 *** 0.0451	0.8185	227	1980-98
Philippines	-0.001 0.0143	-0.189 ** 0.0926	1.023 *** 0.1914	0.379 *** 0.1463	0.5921	227	1980-98
Singapore	4.019E-07 4.951E-6	1.8969E-06 3.2138E-5	0.9998 6.639E-5	0.0001 ** 5.0756E5	0.999	227	1980-98
Thailand	-0.003 0.0115	-0.059 0.0748	1.445 *** 0.1545	-0.212 * 0.1181	0.6307	227	1980-98

Data derived from International Financial Statistics, Monthly Data (1999 CD Rom Version): figures for Brunei and Vietnam were not provided. Nominal exchange rates were used.

* Significance Level of 0.10
** Significance Level of 0.05
*** Significance Level of 0.01

Numbers on the first row indicate the size of the coefficient.
Numbers on the second row indicate the size of the standard error.

Observations on the Second Equation

The majority of the ASEAN countries, 7 out of 10, seem to have implicitly or explicitly stabilized their national currencies to the US $, most probably due to export oriented policies that mainly focused on the USA as a major market.

A more revealing statistical result is that the largest economies in ASEAN (i.e. Malaysia, Indonesia, Philippines, and Thailand) also seem to have stabilized their respective currencies to the Singapore $. This statistical fact may be supported by data in the IMF – Direction of Trade Statistics Yearbook 2000, which indicates that Singapore has the largest trade presence of all ASEAN countries within the Southeast Asian region.

It is also interesting to note that although the Singapore Dollar is statistically significant to the US $ (within a p-value of 0.01), the size of its coefficient is nearly negligible (0.0001).

The established association of the major ASEAN economies with the Singapore $, plus the Singapore government's thrust to rely on outward economic expansion to increase its growth level, may serve to make the Singapore currency a nominal anchor, similar to the German Deutsche Mark, should monetary integration be seriously contemplated.

Third Equation: Regression on Economic Disturbance Model

C	ASEAN	Adjusted R-Sqre	# of Observations
0.8918 *** 0.02806	-0.05235 0.04861	0.003	54

Figures taken from 1999 IMF – International Financial Statistics CD-Rom (yearly real GDP figures from 1980-1999)

Countries excluded due to lack of reliable data: Brunei, Cambodia, Vietnam

Observations on the Third Equation

The result of the third equation clearly indicates the insignificance of ASEAN as a predictor of the correlation of real GDP among countries. Coined in another way, ASEAN countries do not experience economic disturbances at the same time. This is a very relevant observation because it entails higher adjustments costs (in terms of monetary and fiscal policies) should the countries in the region decide to come up with a unified monetary policy.

The insignificance of the ASEAN variable can also be partly due to the varied stages of economic development of countries within the region. Some countries are largely dependent on agricultural products, which is susceptible to the weather and volatile world commodity prices, while other economies are largely reliant on the manufacturing and services sectors (in turn they are affected by a different set of economic cycles).

Application of Convergence Criteria of the Maastricht Treaty

Periodic Averages of Inflation Rate Figures (Table A)

Country	**1971-76**	**1977-82**	**1983-88**	**1989-94**	**1995-99**
Brunei				0.02	0.02
Cambodia					0.07
Indonesia	0.2	0.13	0.08	0.08	.2
Laos					0.13
Malaysia	0.07	0.06	0.02	0.04	0.04
Myanmar	0.19	0.01	0.11	0.26	0.28
Philippines	0.16	0.13	015	0.11	0.08
Singapore	0.08	0.05	0.01	0.03	0.01
Thailand	0.09	0.11	0.03	0.05	0.05
Viet Nam				0.07	0.07
Average	0.13	0.08	0.07	0.08	0.10

Figures of Brunei and Laos were taken from U.N. Statistical Yearbook for Asia and the Pacific2000. Figures for Viet Nam were taken from Viet Nam General Statistics Office. All other figures of remaining countries were taken from IMF-IFS Yearbook 2000.

Long Term Interest Rates (Table B)

	'85	'86	'87	'88	'89	'90	'91	'92	'93	'94	'95	'96	'97	'98	'99
Brunei															
C'bodia															
Laos															
Indon.*			8.28	9.84	14.03	13.85	13.82	13.62	11.85	10.13	10.68	12.45	18.47	34.86	38.06
M'sia**			3.85	3.43	3.82	4.97	6.23	7.02	7.14	5.94	5.22	5.2	6.11	6.56	5.6
Mynmar										10.5	10.5	13.13	14	14	
Phil.*	23.16	23.79	18.11	14.09	14.94	19.00	21.36	20.48	16.74	13.73	12.31	12.27	12.33	13.41	12.633.9
S'pore*			4.51	4.15	4.51	5.42	5.57	4.7	3.33	2.97	2.91	3.06	3.28	4.09	6.693.8
Thail.	12.11	9.11	7.48	7.5	8.09	10.6	10.75	10.75	10.75	10.75	10.75	10.75	10.75	10.25	6.69
Viet Nam															

* Computed from 3 year average money market rates.
** Computed from 3 year average T-bill rates.
Figures are derived from IMF-IFS Yearbook 2000

Government Deficits as %age of GDP (Table C)

Country	'88	'89	'90	'91	'92	'93	'94	'95	'96	'97	'98
Brunei											
Cambodia											
Indon.	-2.94	-1.87	0.38	0.39	-0.39	0.61	0.94	2.22	1.16	-0.67	-1.79
M'sia	-3.56	-3.24	-2.89	-1.95	-0.82	0.21	2.26	0.84	0.72	2.35	-1.76
Myanmar	-3.02	-4.16	-5.13	-48.14	-2.83	-2.15	-3.33	-4.12	-3.16	-17.11	0.51
Phil.	-2.91	-2.11	-3.45	-2.11	-1.18	-1.48	1.07	0.58	0.29	0.06	-1.87
S'pore	6.19	1.18	9.77	10.27	11.93	13.96	14.88	15.96	10.57	16.49	10.52
Thailand	2.31	3.52	4.9	4.01	2.54	1.74	2.81	3.3	0.94	-0.32	-2.55
Viet Nam											
Average	0.65	-1.11	0.60	-6.26	1.54	2.15	3.10	3.13	1.75	0.13	0.51

Figures derived from IMF-IFS yearbook 2000

Outstanding Government Debt as %age of GDP (Table D)

Country	'88	'89	'90	'91	'92	'93	'94	'95	'96	'97
Brunei										
Cambodia										
Indon.		43.71	42.43	36.65	39.3	37.5	36.05	30.82	23.92	
M'sia	2.49	4.93	6.54	6.66	4.68	4.51	8.06	11.2	9.87	3.67
Myanmar	1.845	3.415	4.170	3.606	1.958	1.642	2.606	3.147	2.238	
Phil.	53.29	49.72	51.30	49.7	52.77	67.13	56.42	61.06	53.19	55.78
S'pore	84.11	81.53	82.57	83.89	86.96	76.65	74.15	76.64	76.72	75.53
Thailand	27.73	21.69	15.34	12.29	9.44	6.57	5.4	4.16	4.74	10.02
Viet Nam										

Figures derived from Government Finance Statistics Yearbook, IMF, 2000
Outstanding Debt (Domestic + Foreign Debts); consolidated central government (end of fiscal year)

Periodic Standard Deviation of Exchange Rates (Table E)

Country	'70-75	'76-80	'81-85	'86-90	'91-95	'96-99
Brunei				0.17	0.10	0.17
Cambodia					954.95	587.59
Indonesia	21.51	110.68	214.46	216.66	115.28	3754.46
Laos *	184.45	181.62	11.92	259.57	38.34	2839.07
Malaysia	0.32	0.16	0.07	0.08	0.09	0.7
Myanmar	0.63	0.21	0.48	0.39	0.23	0.29
Philippines	0.45	0.06	4.84	1.59	0.86	7.18
Singapore	0.32	0.15	0.04	0.14	0.12	0.14
Thailand	0.21	0.05	2.03	0.37	0.23	1565.66
Viet Nam					460.34	1565.66
US $	0.1	0.07	0.07	0.07	0.06	0.04
Yen	35.01	36.76	10.24	14.89	16.83	9.59
DM	0.51	0.31	0.29	0.21	0.09	0.38

* There was a revaluation in 1980.
Figures taken from IMF-IFS Statistical Yearbook 2000
Figures for Brunei and Viet Nam are taken from UN Statistical Yearbook for Asia and the Pacific

Observations based on the Maastricht Treaty as a Benchmark

It must be stressed that the usage of macroeconomic indicators embodied in the Maastricht Treaty as a benchmark for ASEAN monetary integration may solicit several criticisms on its applicability to the ASEAN situation due to different political and economic settings. However, the purpose of this exercise is to gauge, offhand, whether ASEAN countries, in their current economic form, can comply with the stringent European criteria.

As regards to the inflation figures in table A, the countries in the regions do not have a history of serious inflationary problems (with the exception of Myanmar). This may be an indication of disciplined monetary policy operations being undertaken by the respective central banks.

On the criterion of long-term interest rates (table B), there seems to be a bifurcation in the trend lines of countries concerned. An upward trend in interest rates includes: Indonesia, Malaysia, and Singapore (as compared to the rest of the ASEAN countries, which are on a downward trend). This indicates expectations of inflation in the future, possibly deduced from interpretations of the respective governments' economic policy announcements.

It is important for the long-term rates of countries concerned to be on the same trend line. This is because a unified monetary union, leading to a single currency, will severely constrain the manner in which countries can fine- tune their national economies.

Tables C and D show that, historically, the ASEAN countries have managed their fiscal spending. No ASEAN country has neither yearly deficits greater than 3% of its GDP nor, with the exception of Singapore, has breached the 60% of GDP outstanding government debt (the Philippines seems to be approaching that level).

For Singapore, its relatively high outstanding government debt as a percentage of GDP (1997 = 75.53 %) is seen as a marked improvement from its all time high of 86.96% in 1992. The decreasing trend in its budget surplus (1998 = 10.52% of GDP) and the corresponding

decrease in government debt as a percent of GDP strongly indicate that the government is gradually paying off its debts with its surplus earnings.

High volatility in currency movements implies constancy in which governments have to adjust macroeconomic policies in order to arrive at an equilibrium point for its internal and external economic environments. Countries that have very volatile exchange rates may need to possess maximum leeway in the use of macroeconomic tools to fine-tune their economies.

Table E shows that Cambodia, Indonesia, Laos, Philippines, Thailand, and Viet Nam have volatile exchange rates. This has to be addressed before any serious thought of monetary integration can be addressed. Otherwise, it would lead to unbalanced growth within the region and constant pressure on the supra-national central bank to adjust monetary policy. Thereby, putting its credibility into question.

Conclusion

The query into the unification of currencies in the South East Asian region is primarily related to a search for ways and means to supplement the efforts of the 10 governments to arrive at a more integrated political, economic, and outward looking regional bloc. One of the major advantages cited by the optimum currency area lies in the further expansion of intra-regional trade as a result of free movement of factors of production, lessened transaction costs, and transparency in economic processes and institutions; thereby, boosting investor confidence.

The various data that were tested, analyzed, and inferred point to varied conclusions as to conformance to the tenets of the optimum currency area. Needless to say, it must be recalled that there is a bifurcation in the theory itself. One school of thought insists that prior to monetary integration, leading to currency union, there must be general economic integration. Otherwise, the whole region might be burdened by economic and social tensions arising from a mismatch in regional macroeconomic policies with that of country specific policy remedial courses of action.

The other school of thought asserts that regardless of the ex ante macroeconomic fit of countries in an optimum currency area, a closer economic and monetary integration should eventually lead to economic convergence.

Through the years the level of intra- ASEAN trade has increased and remained statistically significant. Despite current evidence that clearly point to non-similarity in economic disturbances, in theory, closer trade is supposed to result in countries specializing in the production of goods and rendition of services wherein they have comparative advantages. This should eventually lead to tighter correlation in business cycles, thereby; satisfying the condition

in the currency theory that regions should have similar economic disturbances in order to minimize adjustment costs that each country will have to bear.

With regard to benchmarking to the Maastricht Treaty (which may eventually be politically

and economically incorrect for the region) data indicate that South East Asian countries do not have the historical burden of excessive inflation and fiscal overspending. This can prove to be confidence building barometers should the region decide to seriously pursue monetary, leading to currency, unification.

One factor that needs to be seriously addressed is the seemingly volatile movement of exchange rates for most of the countries in the region. The theory on one currency area entails that the countries' recourse to adjustment of their currencies in order to maintain near equilibrium between internal and external macroeconomic environments would be severely constrained when a central monetary authority dictates interest rates for the entire region.

The reasons for currency volatility of countries in the South East Asian region were not examined in this study. However, an initial hypothesis points to export competitiveness to major markets outside the region. Should currency union come into effect, the transformation of trade, both within and outside the region, would lead to production and rendition of services based on comparative advantages – which lessens the pressure for export competitiveness.

Appendix

Exchange Rate Regimes of ASEAN Countries

Country	Exchange Rate Regime	Monetary Policy Framework
Brunei Darussalam	* Currency Board Arrangement ** Pegged to the Singapore $	* Exchange Rate Anchor
Cambodia	*Managed with no pre-announced path for exchange rate ** Managed floating	* Adopts more than one nominal anchor in conduct of monetary policy
Indonesia	* Independently floating ** Managed floating	* Other monetary program
Laos PDR	*Managed floating with no pre-announced path for exchange rate ** Managed floating	* Uses various indicators in conduct of monetary policy
Malaysia	*Other conventional fixed peg arrangements ** Managed floating	* Exchange rate anchor
Myanmar	*Other conventional fixed peg arrangements (against a composite of currencies) ** Pegged to SDR	* Exchange rate anchors
Philippines	*Independently floating ** independent floating	* Adopts more than one nominal anchor in conducting monetary policy
Singapore	*Managed floating with no pre-announced path for exchange rate ** Managed floating	* Other monetary policy framework
Thailand	*Independently floating ** Pegged to a basket of currencies other than SDR	* Other monetary program
Viet Nam	* Pegged Exchanger Rate within horizontal bands ** Managed floating	* Exchange rate anchor (has a de facto arrangement under a formally announced policy of managed or independent floating)

Source: International Financial Statistics Yearbook

* As of March 31,2000

** As of March 31,1997

Chronological Order of Salient ASEAN Events
(in relation to possible currency unification)

Date	Agreement	Summary
1. August 8,1967	1. ASEAN Declaration (Indonesia, Malaysia, Singapore, Thailand)	1. Need to strengthen regional solidarity and cooperation, which is aimed to contribute towards the development of peace, progress and prosperity in the region; the association was open to all states in the SEA region
2. 24 Feb. 1976	2. Declaration of ASEAN Concord (Malaysia, Philippines, Singapore and Thailand)	2. Agreement to pursue political stability of each country and the entire region; also an affirmation to take cooperative action in national and regional development and to broaden the complementation of each economy; also an agreement to develop an awareness of a regional identity
3. 13-15 Dec., 1987	3. 3rd Summit Meeting of Heads of Government	3. Agreement to strengthen intra-ASEAN cooperation to realize the region's potential I trade and development
4. 28 Jan. 1992	4. Common Effective Preferential Tariff Scheme (CEPT) (Brunei, Indonesia, Philippines, Singapore, Malaysia, Thailand)	4. Preferential trading arrangement will serve as a stimulus to the strengthening of national and ASEAN economic resilience; the agreed tariff system encompassed all manufactured items with a local component of at least 40%; cited a graduated schedule for preferential tariff reductions to within 0-5%
5. 15 Dec. 1995	5. Amendment to the CEPT Scheme	5. Amended to include capital goods and agricultural products
6. 15 Dec. 1997	6. ASEAN 2020 Vision	6. By 2020, the entire South East Asian Region will have a common regional identity; sought the realization of a stable, prosperous and highly competitive ASEAN economic region - gave emphasis on the attainment of free flow of goods, services, investments, capital, equitable economic development and reduction of poverty - envisioned the integration of the financial sector, free flow of professional services and the establishment of regional information technology network - avowed the interconnection of arrangements in the field of energy and integration of transportation

7. 1998	7. Hanoi Plan of Action	network, promotion of a customs partnership to promote trade and investment - to realize an outward looking ASEAN 7. Initiated a series of action plans to concretize the Vision of 2020; emphasis was given on: - Maintenance of regional macroeconomic and financial stability - Orderly capital account liberalization (with facilitation in cross border capital flows) - Cooperation in money, tax and insurance matters - Enhanced role of the private sector - Development and integration of ASEAN's capital markets (also includes the cross listing of SMEs) - Enhanced economic integration - Customs harmonization - Sustainable attractiveness of the region to foreign direct investments through ASEAN Investment Area - Promotion of free flow of capital, labor and technology within the region - Removal of transportation, travel and telecommunications barriers - Joint development of infrastructure facilities - Insurance of regional food and security arrangements - Joint development and adoption of new technologies - Enhanced regional cooperation in international and regional issues - Foster of SMEs and adoption of best practices - Intellectual property cooperation - Expedition of the implementation of the various economic growth areas (BIMP, IMS-GT, IMT-GT, E-W Mekong Basin, Mekong Basin development Cooperation) - Promotion and protection of the environment - Promotion of ASEAN's standing in the international community 8. The adoption of a proactive role at various international and regional for a in any endeavor towards the reform of international financial architecture to ensure efficiency and stability of financial markets 9. Concord on an e-ASEAN framework as a step to place ASEAN into digital readiness; to facilitate interconnectivity and technical interoperability to foster growth in e-commerce

8. 30 April 1999	8. Common ASEAN Position on Reforming the International Financial Architecture	- to narrow the divide within ASEAN and enhance its competitiveness as a region - further affirmed its declaration to develop a common market place for trade, human resource development and e- governance
9. 22- 25 Nov. 2000	9. ASEAN Informal Summit	

Sources: original texts of the aforesaid agreements from ASEAN web site (www.asean.or)
BIMP refers to Brunei –Indonesia-Malaysia –Philippines East Asian growth Area, IMS-GT refers to Indonesia-Malaysia-Singapore Growth Triangle, IMT-GT refers to Indonesia-Malaysia-Thailand Growth Triangle, West –East corridor of Mekong Basin covers Vietnam, Laos and Cambodia, Mekong Basin Development Cooperation Scheme covers North and eastern side of Thailand

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