ASEAN DOLLAR : A Common Currency Establishment for Stronger Economic Growth of ASEAN Region[1]

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ABSTRACT

The current optimal strategy for ASEAN countries is to assess whether the necessary environments exist for the establishment of a well-integrated common financial market for the ASEAN area, and consequently support for a single currency. The currency is for discussion purposes termed the ASEAN Dollar. In this paper we focus on a practical application, involving two components: 1) The six convergence criteria that we propose each ASEAN country should meet in order to become eligible for the ASEAN Dollar; and 2) Establishment of the ASEAN Economic and Currency Community (AECC).

Further, measurement of the evolution of financial market integration in the ASEAN countries will be investigated. Patterned vector time–series modelling will be utilised to set up and monitor economic and financial integration indicators. Those economic and financial integration indicators will be applied to measure the following three broad financial categories in the ASEAN countries: a) credit and bond market integration and cointegration to establish the nature of short and long-term co-movement; b) Stock market integration and cointegration to establish the nature of short and long-term co-movement; and c) Exchange rate market integration and cointegration to establish the nature of short and long-term co-movement. Subsequent evaluation of key indicators of economic and financial integration will also be undertaken.

Keywords: ASEAN Dollar; Convergence Criteria; Market Integration; Common Currency; ASEAN; Financial Markets; Consolidation; ASEAN Monetary Union

JEL Classifications: G10, F30, F36

I. Background

Globalization has altered the economic frameworks of both developed and developing nations in ways that are difficult to comprehend. The persistent rise in the dispersion of current account balances of the world as a whole, wherein the sum of surpluses match the sum of deficits has grown substantially since the World War II. Also the emergence of unregulated global markets appears to have moved towards a more stable and growth oriented economic globe. The economic regions which have emerged in the last three decades showing stable growth with regards to trade and co-integration have been the North America Free Trade Agreement Zone (NAFTA), the European Union (EU) and the ASEAN. Though there has been emergence of economies like China and India for both trade and economic development in the last decade, however the above mentioned three regions have by far had a cumulative co-integrated growth factor. The US has led the countries in the North America Free Trade Zone to undertake free trade activities, and has achieved significant results. The European Union has achieved considerable economic integration and inaugurated the European Single currency (Mundell, 1997, Agarwal 2003, 2002). The ASEAN countries comprise Brunei Darussalam, Cambodia, Indonesia, Laos, Malaysia, Myanmar, Philippines, Singapore, Thailand and Vietnam. These countries are striving to establish the free trade zone, although the level of economic integration is still low in the ASEAN region.

The recent developments where there is a move towards the ASEAN countries having agreed to strengthen the existing cooperative monetary framework with China, Japan and India is a positive step towards a stronger financial setup and socio-economic growth. The agreed monetary arrangements will involve a network of monetary exchange within the ASEAN+3 countries. Also, the ASEAN countries have agreed with China to establish a China-ASEAN free-trade-zone within the next ten years. Nothing is particularly innovative in these two regional agreements, as they only propose to use the existing monetary framework within the ASEAN countries. This is similar to the way EU Institutions had increased trade associations between the region in the 1970s and 1980s

(Agarwal 2003, 2002, 2001). However the ASEAN countries have their own problems to resolve. For example, the wealth gap between rich and poor in many ASEAN countries is very large. Also the ASEAN countries experienced the worst ever 1997 Asian financial crisis. There has been an inconsistency in the recovery from the 1997 crisis within the ASEAN region countries. Overall the ASEAN countries have experienced low economic growth, a somewhat unstable social and political environment and heavy foreign debt. Since each member country of ASEAN needs to solve its own internal problems, this leads to a lower expectation for immediate regional co-operation and to disparate collaboration policies with non-ASEAN countries. Notably Singapore alone has signed free-trade-zone agreements with Australia, Japan and the USA respectively. None of the other ASEAN countries have been involved in these three agreements. This is indicative that future developments within ASEAN may be uncertain.

Further, Japan has recently signed the "Tokyo Declaration" and "Activity Plan" with the ten ASEAN countries. The Japanese Government will provide those countries with US$ 3 billion to establish a trade-free zone before the end of 2012. The aims are to (1) develop human resources; (2) strengthen technical skills in the ASEAN region; and (3) decrease the development gap amongst the ASEAN countries. Considering the above facts, we see that a great attention has been paid to global economic issues in the last decade. This has been a natural byproduct of the increasing inter-dependencies of all national economies. This has accentuated in recent years due to the emergence of several developing countries as global economic forces, the reorganization of production process, change in nature and location of development and finance. One can clearly observe this with the economic growth and self sufficiency attained by India, China and quick re-emergence from crisis of the ASEAN countries (Agarwal & Agarwal, 2004).

II. Scope of the Proposal

The current optimal development strategy for the ASEAN countries could be to plan and establish a common financial market for the ASEAN region, to be underpinned by a

single currency and formation of a monetary union. The common currency proposed in the paper is denoted as the ASEAN Dollar. There are extensive research and academic papers in support of the positive contribution of a single currency. The US$, EURO and INR (Indian Rupee) have shown their proved strength and sustained economic growth in the regions they have been used. Therefore theoretical advocacy is not re-iterated here, and we focus on a practical application. The expected advantage of an ASEAN Dollar is an improvement in the economic strength of each ASEAN member country, resulting in an improvement in their long-term economic growth. Some of the other observed benefits in Europe, US, India and other integrated economies have been increases in trade of both goods and services; in house investment growth (among countries in union / region); reduction in transactional costs (in cross-border business); reduction in volatility in exchange rates and financial markets and finally more stable socio-economic growth. These substantial benefits can be attained due to

I) elimination of the costs of currency exchange;
II) improvement of market operations by pricing goods and labour using a single currency; and
III) adoption of a single currency to prevent tax cheats and tax avoidance.
IV) formation of monetary union
V) increasing labour markets

After a long period of fostering the concept, the ASEAN countries could expect that the initiation of the ASEAN Dollar would exhibit the following the above mentioned strengths along with

I) an integrated regional economic and financial framework;

II) a forward-looking progressive attitude shared by the leaders of all ASEAN member countries, whereby those leaders are willing to give up the power of issuing their own currency, and transfer this power to the proposed Central Bank for the ASEAN countries; and

III) an application of advanced forecasting techniques, as proposed by us, will establish whether the conditions needed to sustain an ASEAN Dollar Community are likely to prevail.

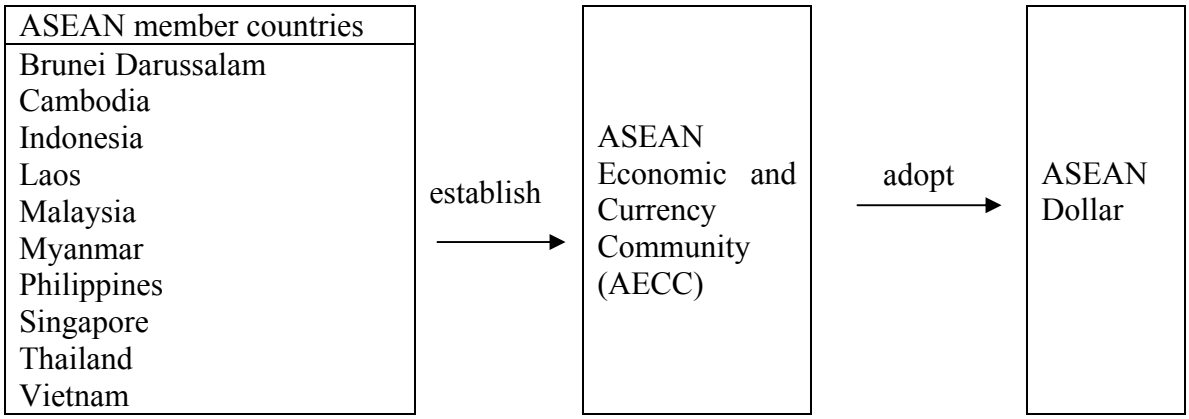
III. Establishment of the ASEAN Economic and Currency Community (AECC)

3.1 Organisational Structure

The adoption of the ASEAN Dollar will result in the replacement of the existing ASEAN currencies by the ASEAN Dollar. This adoption has been agreed to in principle, and therefore there should be little impediment on its implementation. To achieve this adoption careful planning is indispensable, and sustained adverse impacts on the ASEAN markets needs to be understood and avoided. AECC will be responsible for this currency adoption activity, and the position of the AECC in this process is shown in Figure 1.

Figure 1

Flowchart of the position of the AECC in the adoption process for the ASEAN Dollar



3.2 Responsibility

The AECC will also aim among other things, to reduce the wealth gap between poorer people and richer people by undertaking development and coordination. The members of the AECC will come from the ASEAN countries, and it is proposed that the AECC should set up an executive committee. The executive committee may be led by a Chairperson, and comprise various agencies to reflect the tasks assigned to the AECC. Thus it might establish a Standing Development group, a Forecasting Methodology Advisory group, a Secretariat group, and a Legal and Planning group, and such other groups as are needed to achieve AECC objectives and associated tasks. All group leaders may be appointed with scholars and specialists in the ASEAN region. It will also need to undertake competency based training (CBT) and workshops to regularly provide specific skills required by government officials and identified as necessary for job-seeking workers. Figure 2 below shows the possible structure of the AECC and relevant activities.

Figure 2

Possible Structure of the AECC

A) AECC executive committee

- A.1. Standing Development Group
  - A.1.1 Statistics Team
  - A.1.2 Monetary System Team
  - A.1.3 Scope: research in budget, government loans and taxation
  - A.1.4 Finance Team
  - A.1.5 Scope: research in currency, interest rate and exchange rate
  - A.1.6 Economics Team
  - A.1.7 Scope: research in price, inflation and economic growth
  - A.1.8 Trade Team
  - A.1.9 CBT Team
- A.2. Secretariat Group
  - *Scope:* budget planning and preparation, meeting arrangements, work plans and task implementation, and Miscellaneous tasks

B) Special responsibility

- B.1. Forecasting Methodology Advisory Group
- B.2. Legal and Planning Group
  - *Scope:* Central Bank preparatory office, Single market, Legal procedure examination, ASEAN Dollar simulation planning and Miscellaneous tasks

3.3 Specific Tasks of the AECC

3.3.1 Establishment of the Legal status of the ASEAN Dollar

The AECC may need to make various innovative proposals, and then invite Treasurers and Ministers of Finance of each ASEAN countries or local equivalents to meet with the President of the Central Bank to make final decisions on the proposals. After an agreement is reached, individual ASEAN countries may complete necessary legal procedures, so that subsequent actions may be recognised by all ASEAN countries. For

instance, all agreements may need to be guaranteed to remain effective until the official adoption of the ASEAN Dollar. Also the implementation of relevant policies may need to be supported by the relevant legal systems. Thus the AECC needs to ensure the relevant legal framework is adopted in each ASEAN country.

3.3.2 Establishing the qualifications required of countries wishing to participate in the ASEAN Dollar scheme

The economic environment of the ASEAN region is different from that of the European Union. In the course of establishing the qualifications required of countries wishing to participate in the ASEAN Dollar scheme, the AECC may encounter many statistical complexities, some currently unknown and some which cannot be fully quantified. It is estimated that at least several years may be required to ascertain exactly what type of statistical information may need to be collected, and to achieve the necessary statistical returns. After data collection, analysis and forecasting, a reliable quantitative model for the ASEAN economic framework can then be established. It is proposed that the original six ASEAN countries will initially participate in the single ASEAN currency. After a reasonable period to facilitate the development of appropriate systems, the remaining four ASEAN countries may then join the single ASEAN currency.

Reflecting their varying historic traditions, ASEAN member countries have different economic, monetary and banking frameworks. After the ASEAN Dollar is adopted, central monetary policy will have different impacts on each of the member countries. Thus unexpected difficult economic circumstances may arise. When those difficulties occur, the ACEE needs to monitor the situation and assist member countries to avoid unnecessary friction. The key economic cost from formation of a currency union by a group of countries is the loss of national autonomy in the monetary policy, as projected in almost all economic integrations. Under such consortiums, the scope of independent monetary policies by the member countries of the region reduces to the minimum. The economic loss from giving up an independent monetary policy may not be very large for

such countries as the record of developing countries in conducting independent national monetary policies to minimize cyclical fluctuations in the economic activities is in itself minor. The singular currency and joint monetary policy would enable bring forth greater macro-economic stability from countries having less hold (Barro 2001). Considering this the member countries need to develop policies which encourage a stable monetary situation and which control turbulent domestic circumstances. The ASEAN countries should certainly refer to the Maastricht Treaty which stipulates six criteria that countries in the EU must meet to become eligible for adoption of the EURO. All quantitative figures need to be re-assessed to ensure relevance for ASEAN conditions and to introduce flexibility with a fair variation of 5 to 10% in the conditionality should be permitted; so that violation of the type of Germany and France recently in case of EU does not surface and distract the decision making and cooperative process. These six criteria which are vital are

a. The ratio of a country's planned or actual government deficit to GDP must not exceed 3 percent;
b. The ratio of a country's government debt to GDP must not exceed 60 percentage points;
c. A country's currency must have stayed within the normal 15% fluctuation margins for at least two years, without devaluing further against the currency of any other member;
d. A country's inflation rate must not exceed by more than 1.5 percent the average inflation rate of the three best performing members;
e. A member must have had an average nominal long-term interest rate that does not exceed by more than 2 percent points that of, at most, the three best performing members.
f. Management of the money supply within the ASEAN Dollar community to facilitate the achievement of criteria a) to e).

3.3.3 Improvement of guidance mechanisms for a number of countries

Although the Euro has been officially inaugurated, it seems to have lost part of its coverage because three EU countries have still not officially adopted it. It is possible that a similar situation could arise when the ASEAN dollar is officially inaugurated. Thus the AECC needs to improve its guidance mechanisms for those member countries which might not wish to or be able to meet all criteria to become eligible for adoption of the ASEAN Dollar. The AECC should adopt procedures to assist countries wishing to improve their economic operations, and thus meet criteria to become eligible for the ASEAN Dollar.

3.3.4 Establishment of Core member countries

The AECC may assess ASEAN member countries to determine their eligibility for the ASEAN Dollar. After the eligibility assessment model is established, it needs to be approved by a meeting of Treasurers and Finance Ministers of all ASEAN countries and the President/Governor of the Central Bank for the ASEAN Dollar. Further, this model needs to be incorporated into the legal systems of the ASEAN region. All those member countries with sufficiently strong economic circumstances may be eligible for the ASEAN Dollar. They can also become core member countries as a demonstration of what is required of other intending countries. Subsequently those remaining countries can improve their economic operations, and thus qualify to adopt the ASEAN Dollar. Our findings in the paper suggest that Malaysia might be the first country qualified to adopt the ASEAN Dollar as a forerunner of others. The other countries, once able to adopt the ASEAN Dollar, would in turn be the forerunners.

IV. Establishment of the ASEAN Bureau of Statistics

ASEAN Bureaus of Statistics (ASEANBS) may be ultimately responsible for all statistical and financial data collection, data analysis and data assessment in all ASEAN member countries. ASEANBS may assess the existing statistical agencies in all ASEAN member countries, and then assist those statistical agencies to establish a statistical

system and procedures necessary to ensure that all statistical information required demonstrating achievement of criteria. Statistical and financial data need to reflect the current economic situation and future economic outlook, and thus may be crucial and decisive factors in the successful implementation of the ASEAN Dollar. Therefore a central statistical agency at the highest level is required to undertake statistical work to support the ASEAN region. The establishment of the ASEANBS is one of the most important tasks which must precede the operation of the ASEAN Dollar.

V. Monetary and tariff arrangements

In order to implement the ASEAN Dollar plan, support from a sound monetary and tariff policy is also necessary. Three concurrent approaches are needed as follows:

5.1. Tariff reduction

5.1.1 Remove existing Tariff barriers

The ASEAN Free Trade Area (AFTA) has been agreed, and signed by ASEAN member countries, and is now being implemented. Tariffs may be completely abolished by 2010 for ASEAN-6 (Brunei Darussalam, Indonesia, Malaysia, Philippines, Singapore and Thailand), and by 2015 for the newer members (Viet Nam, Laos, Myanmar and Cambodia - with flexibility on some sensitive products until 2018).

When this process is completed in the ASEAN region, travel, goods, technology, labour and capital can freely flow without any restrictions. The achievement of AFTA may result in:

a. Simulation tasks being simplified and thus being completed more speedily

b. The year 2010 being designated as ASEAN Dollar Year, which should be a target year for the inauguration of the ASEAN Dollar.

5.2 Control government expenditure and so decrease the issue of government bonds

In preparation for the implementation of the ASEAN Dollar, all ASEAN member countries need to minimise their budget deficits even if they meet the six criteria described in Section 3.2.2, reduce government expenses, and decrease the issue of government bonds. Those tight fiscal measures may bring disharmony to people living in the ASEAN region, and may possibly lead to strong reaction, such as large-scale strikes. However a strong fiscal policy is a needed measure for the success of monetary policy and stable economic growth in the region (Agarwal 2003, 2002, 2001). Although adverse responses have been experienced in Euro zone countries on this issue. In order to lessen the adverse impacts on the ASEAN region before introducing the ASEAN Dollar, this paper proposes a variety of measures to support those ASEAN countries, in particular, to strengthen the psychological preparedness of people to adapt to various changes that may occur in the ASEAN countries.

5.3 Issues arising from tariff removal

5.3.1 Harmonisation amongst ethnic groups and employment opportunities

Due to long-term economic circumstances resulting in large gaps between richer and poorer people in the ASEAN region, harmonisation amongst ethnic groups is a very vital aspect in the formulation and implementation of the ASEAN Dollar. Reconciliation is the most effective tool to achieve benefits amongst various ethnic groups in the ASEAN region. Reconciliation, indicated by greater equity in the treatment of different ethnic groups, may encourage cooperation, harmony, consistent and fair treatment, and thus becomes a goal to achieve within and between each of the ASEAN countries. Expectations of better employment opportunities for disadvantaged ethnic groups are intended to be significantly improved as part of this reconciliation process.

5.3.2 Arrangements for streamlining of tariffs

The streamlining of tariffs needs to be part of arrangements in the implementation of the ASEAN Dollar. Otherwise the ASEAN governments may raise loans because of unaffordable monetary capacity. The proposed measures support tariff streamlines by:

a) Setting limits to government budget deficits and bond issues

According to the Maastricht Treaty, the budget deficit of any Euro member country should not exceed 3% of GDP, and the government bond issue should not exceed 60% of GDP. In reality, two core countries - France and Germany - have already violated those two limits. The European Central Bank warned that both France and Germany should follow the regulations to reduce their increasing budget deficits, as otherwise the reputation of the Euro would be damaged. However both France and Germany ignored this warning and the EU conditionally accepted their violation. Consequently these two regulations have lost their effectiveness. In the course of implementing the ASEAN Dollar, it is necessary to carefully plan the limits of the budget deficit of a member country. The AECC should propose to use the two most important criteria – a reduction in conflicts between ethnic groups and an improvement in employment opportunities – and then establish an independent budget deficit limit for each member country.

b) Principles of introducing new taxes:

In the implementation of the ASEAN Dollar, the harmony principle can be adopted when introducing new taxes. For instance, this implies imposing property tax, and death duties with a major impact on wealthy people. Wealthy people may necessarily have to pay those taxes, and cannot shift their burden to other people. For those ASEAN countries which have already imposed those taxes, it might require an increase in current tax rates.

The paper only introduces examples to illustrate the principles to be adopted in practice. The economic and monetary teams of the AECC need to undertake detailed investigation of all these areas to provide useful and valuable approaches and to seek the approval of these approaches by the AECC, and then to implement the agreed strategy. Further, simulations need to be undertaken as part of this

program to accurately assess the impact on the economy and the general public. The paper suggests conducting such simulations in Malaysia first. A comparison of likely outcomes, with actual results, may lead to a report including appropriate implementation plans for the remaining ASEAN countries.

VI. The ASEAN Central Bank (ACB)

6.1 The special status of the ACB

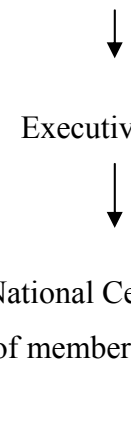
The ACB is proposed to be a Central Bank across the ASEAN region, following the model of the European Central Bank (ECB) and the Federal Reserve Board. It will be the third monetary institution at the international level without specific government monitoring. In the establishment of the AECC, the role of the ACB must be to become a steadfast and independent institution whose mission is to undertake long-term planning so that ASEAN's external monetary policy supports and strengthens the ASEAN Dollar.

6.2 The organisational structure of the ACB

Analogous to the ECB, the organisational structure of the ACB is briefly shown in Figure 3.

Figure 3

The organisational structure of the ACB



6.2.1 Governing Council

The Governing Council (GC) will be the highest authority of the ACB. The members of the GC comprise representatives of the AECC member countries, members of the Executive Board, the Governors of the Central Banks of all ASEAN member countries and two Non-voting members each from World Bank and IMF as observers. In principle, the Management Meeting (MM) of the GC will be called monthly with a quorum of two thirds of all members, where no crucial issues are to be decided. The Chairperson of the MM will be elected in turn in each calendar year. A flowchart of the decision process of the MM is shown in Figure 4 below.

Figure 4.

Flowchart on issues

a) Every attendee has one vote, and all voting is related to the external monetary policy of the AECC.

↓

b.1) For general issues, a decision can be made with at least two thirds of 'for' votes. The Chairperson has normal voting rights, and can cast a deciding vote.

↓

b.2) For special issues, the decision will be linked to the number of capital shares held by each country in the ACB. The voting rights will be proportional to the number of ACB's capital shares held by each voter. This number of ACB's capital shares will be adjusted once every five years. One model describing the allocation of capital shares is outlined below

↓

c) The ACB may announce the decisions made by the MM.

6.2.1.1 The main activities of the MM

The main activites of MM should be

a. Approve the qualifications of each of the ASEAN member countries which meet the criteria to become eligible for the ASEAN Dollar
b. Approve the title of the ASEAN Dollar
c. Establish the external monetary policy of the ACB
d. Establish the ACB's capital amount and share distribution principle.

The capital amount of the ACB may be tentatively set at ten billion US Dollars under the assumption that the ACB may be established in 2010. This capital amount may become valid on the approval of the MM. To establish the share distribution principle, this paper may follow the Euro's distribution approach. The weighting principle will use a uniform distribution approach, which utilises the population of each ASEAN member country at the end of 2009, and the average growth rate of the GDP of each ASEAN country from the period 2003 through to 2009. The capital amount may be paid in by the Central Bank of each ASEAN country. Those ASEAN countries meeting the ASEAN Dollar criteria may pay first. The total payment may be the receivable capital of the ACB. For those remaining ASEAN countries, their distributed payment amount may be held back, and they may make their payment after they meet the ASEAN Dollar's criteria. Note the ASEAN Dollar may not be inaugurated before 2010.

6.2.2 Executive Board

a) Members

The Board may consist of six non-continuing members appointed from the Governors of the Central Banks of the ASEAN countries meeting the ASEAN Dollar criteria. If the number of those ASEAN countries is less than six, then the vacant membership(s) won't be filled until any of the remaining ASEAN countries meet the criteria. The term of each member may be eight years. The

members appointed may select a President and Vice-President respectively with a term of four years. The President and the Vice-President can only be selected for one term.

b) Activities

b.1 Implement the external monetary policy approved by the Governing Council;

b.2 Formulate the monetary policy for the ASEAN region;

b.3 Promote the circulation of the ASEAN Dollar;

b.4 Stabilise the exchange rates of the ASEAN Dollar;

b.5 Stabilise interest rates in the ASEAN region;

b.6 Operate the remaining financial instruments;

b.7 Publish Monthly Bulletins including relevant statistical data and annual reports;

b.8 Adjust the money supply and monitor its annual growth.

6.2.3 National Central Banks

The existing National Central Banks (NCBs) of the ASEAN member countries may be the core agencies to implement the monetary policy approved by the ACB. In the course of introducing the ASEAN Dollar, the current organisational structures of NCBs may remain, however their activities may necessarily change.

a. After the inauguration of the ASEAN Dollar, the forex and credit risks in the ASEAN should reduce. Governments and private industries can rely on the ranking information provided by the credit assessment institutions to attract money inflows in the international capital markets. In particular the ASEAN bond markets have not as yet reached a healthy market rating. ASEAN investors are likely increase their dependence on the ranking information provided by the credit assessment institutions, and then understand the appropriate assessment on shares and bonds. Consequently in future the role of issuing shares and bonds may be undertaken by ASEAN markets,

replacing local banks which now provide industry and business with money. The role of banks is expected to change from that of lenders to that of investment advisors. Thus banks may need bank managers with backgrounds that can ensure they can adjust to the new financial environment.

b. Currently the US Dollar, the Euro and the Japanese Yen are a set of popular currencies used in the ASEAN region. After the inauguration of the ASEAN Dollar, the ASEAN countries will have to progressively adjust their trade settlement currency, financial assets and foreign reserve levels, and ultimately will all use the ASEAN Dollar as their preferred denominated currency.

c. After the inauguration of the ASEAN Dollar, it is likely to become a focus for international capital flows in the region. In the short-term, the ASEAN Dollar may attract capital outflow from the USA and Europe to the ASEAN. The increased capital flow, may assist banks to become more efficient, fee structures may adjust, and these developments may increase the competitiveness among banks. In order to decrease the operational costs, banks may undertake merger and cooperative activities, and thus increase the monitoring responsibility of the ACB.

VII. Foreign Exchange Policy

7.1 Floating exchange rate

With the launch of the ASEAN Dollar, it is proposed for it to follow the international currencies such as the USD, the Euro, the British Pound, the Indian Rupee and the Japanese Yen, in adopting a floating exchange rate approach (in a managed float, as in all these cases). The paper suggests the use of sophisticated forecasting techniques to produce a balanced exchange rate between the ASEAN Dollar and a basket of currencies having USD, EURO, JPY and few others. To begin with, the exchange rate the ASEAN Dollar has to be fixed against the basket of currencies for its formal launch into the international financial markets. The first exchange rate may heavily affect the future movements of the ASEAN Dollar exchange rate, and thus should be carefully structured. The strategy used by the ECB to launch the Euro as the currency in use before launching

it physically into circulation is good and sound. Thus, the sound foreign exchange rate policy may be crucial in the process of establishing the ASEAN Dollar. This policy aims to improve the overall economy in the ASEAN region, rather than seeking to compete with international currencies such as the US Dollar and the Euro. The international capital flows have a profit-seeking feature, which may create fluctuations in ASEAN forex markets. In order to cope with this quickly changing environment, the ASEAN Dollar needs to work towards a stable exchange rate. It should unify the ASEAN's financial market movements, and promote an integrated ASEAN economic structure to avoid unnecessary competitiveness. It will also need to establish a role in the international currency scheme, with acceptable status. The ten ASEAN countries have different business cycles and economic features, and the ASEAN Dollar needs to overcome the possible conflicts that could arise for a unified ASEAN currency, if economic interests of individual countries were separately promoted. Thus the paper suggests that the ASEAN Dollar should use the experience of the international major currency's forex policy to gain the confidence of international investors. The ASEAN Dollar will also maintain a stable exchange rate to sustain a confidence in the ASEAN Dollar.

7.2 Review of the Euro movements

The Euro became the official currency in the European Monetary Union on 1 January 1999. The exchange rate of that day was 1 Euro: 1.16675 US Dollar, and soon the relative weakness of the Euro became a feature of foreign exchange markets. According to the European Central Bank (ECB) Monthly Bulletin, the average monthly value of the Euro relative to the US Dollar fell to the lowest rate of 1 Euro: 0.853 US Dollar. The Euro's weakness up to that period confounded earlier general expectations that it would trend upwards relative to the US Dollar (see ECB Monthly Bulletin, February 2001). Three member countries of the European Union – Great Britain, Denmark and Sweden – have refused to join the Euro. Initially the Euro was designed so that the budget deficit should not exceed 3% of the GDP, the government bond issue should not exceed 60% of

the GDP, and the annual growth rate of the money supply (M3) was set to the reference value of 4.5%. Those three items were all crucial. After the introduction of the Euro, the ECB wished to attract investors to the European financial markets, and relaxed the restriction on the annual growth rate of M3. Consequently this three-month calculated index increased to a maximum of 8.1% in February 2003, and led to spillover effects on the Euro's exchange rate. Brailsford et al (2004) suggest that those foreign reserves of the ECB could be used to influence movements in the Euro's exchange rate. The amount of foreign reserves currently required to again achieve a targeted Euro exchange rate, quite specifically the initial rate existing on 1 January 1999, was estimated. The paper proposed by Brailsford et al (2004) was initially presented at the 2002 European Financial Management meetings held in London. On 23 May 2003, the Euro's exchange rate increased to 1 Euro: 1.1837 US Dollar and on 2nd April the exchange rate is 1 Euro : US Dollar. This outcome provides valuable experience for the ASEAN Dollar's exchange rate after the introduction of the ASEAN Dollar, namely how to achieve a targeted Euro exchange rate which continues to meet exchange criteria.

7.3 Forecasting techniques

We aim to investigate the time-series relationship between the estimated integration levels, market-based measures of capital flows and market volatility. As the relationships between these three variables are expected to be both non-contemporaneous and cross-country in nature, a vector autoregressive (VAR) framework is utilised. In addition, a number of unique features of the variables create estimation problems. First, the stationarity properties of the variables in time-series need to be carefully considered. We develop a procedure that allows the estimation with a mixture of I(0) and I(1) processes within the context of a vector autoregressive and moving-average (VARMA) framework. Specifically, two procedures are implemented, the zero-non-zero (ZNZ) patterned VAR modelling, and the ZNZ patterned vector error-correction modelling (VECM). Further, due to the size of the relationships being estimated (to illustrate, there may be 4 variables x 25 economies x 12 lags), some structure needs to be imposed on the VAR. To establish

relationships between the variables, balanced state-space modelling is used to conduct analysis of the impulse response function, and tests of cointegration and Granger causality. A bootstrapping procedure is used to create greater insight into the distributions of the estimates and proposed projections obtained from the VAR and other models.

We plan to conduct the modelling by using a structural three-stage approach. In the first stage, the VAR for each economy need to be constructed for preliminary analysis. In the second stage economies with (expected) similar characteristics need to be grouped into clusters, thereby substantially reducing the size of the system. The VARs constructed in the first stage constitute building blocks for the block diagonal part of the VAR for each cluster. The interconnecting off diagonal blocks between each economy in a cluster is then to be estimated to produce a VAR for each cluster. Analogously we can construct a final VAR for all economies in the third stage, with the VAR for each cluster providing the block diagonal building blocks for the final VAR. In this way the final VAR can then be established, and indeed the basis for decomposition into interactive or independent groups developed. Under this approach, the problem of scale reduces to a manageable size and one that can be confidently handled.

The spill-overs can be identified from the off-diagonal coefficient entries of the ZNZ patterned VAR models with the relevant variables included in the models.

Fourth, we aim to conduct PPP testing and currency cointegration to assist with assessing the practicability of a currency union to underpin an integrated stock market in the Asia-Pacific. PPP has important implications for explanation of exchange rate movements and exchange rate forecasting in the long-term. If, for example, the PPP of a local currency is shown to be out of line in the long-term, then the currency can be expected to appreciate or depreciate against the foreign currency in the long-term. Many theoretical and empirical models have been built on this theory, but a survey of empirical testing provides inconclusive evidence of its existence. In general, most studies tend to reject

PPP in the short-run while in the long-run there is both evidence supporting and rejecting PPP (MacDonald, 1995). One factor contributing to these mixed results relates to the procedure used in testing. In recent years the theory of cointegration has been widely applied to tests of PPP. If the individual variables involved in the PPP relationship, namely the nominal exchange rate and the ratio of domestic to foreign prices, are non-stationary, but a specific linear combination of them is stationary, then PPP is claimed to hold.

For currency cointegration, Aggarwal and Mougoué (1996), and Tse and Ng (1997) conducted cointegration investigations among selected Asia-Pacific currencies which did not include Australia. Their findings indicated that cointegrating vectors exist among these currencies. The more successful a currency union becomes, the more integrated will be the movements of these currencies. These results suggest evidence supporting the formation of a currency union.

However previous researchers tested for cointegrating relations in full-order VECM modelling. The full-order structures contain nonzero elements in all their coefficient matrices. The important area of application involves modelling forex market movements and the interaction between relevant monetary variables. There is a high probability that the model structures will involve zero entries in the coefficient matrices. Specifically, in tests of indirect causality and/or Granger non-causality in the framework of a VECM, the power of causality detection is crucially dependent upon finding zero coefficient entries where the true structure does indeed include zero entries. This VECM, with allowance for possible zero entries in the coefficient matrices, is referred to as a ZNZ patterned VECM. Recent advances have shown how ZNZ patterns can be explicitly recognised in a VECM. The results of simulations and applications of this approach have revealed that the selected optimal patterned VECM provides an effective means of detecting cointegrating relations and Granger causal relations from the coefficient matrices.

In this proposed market ZNZ patterned VECM modelling will be utilised to investigate PPP testing and currency cointegration including the Australian Dollar. In addition, some important techniques developed for linear models can be extended to non-linear modelling. For example we have applied a computationally efficient tree-pruning algorithm in conjunction with model selection criteria to select the optimal patterned VECM with ZNZ patterned cointegrating and loading vectors for an I(1) system (Penm et al 1997, 1999). This algorithm is suitable for studies of seasonal, temporary and fractional cointegration, and has been extended to an I(2) system (Brailsford et al 2002). In Penm et al (2000) we have proposed procedures using a neural network approach, in conjunction with model selection criteria, to select the optimal ZNZ patterned model. The optimal parsimonious model is then used as the basis for capturing non-linear relationships and conducting forecasting. With these methods applied to financial structures of currency systems, the modelling of such financial structures using optimal neural networks will lead to a better understanding of PPP investigation and currency cointegration, and result in a better understanding of the nature of market integration.

7.3.1 Establish a floating region for the exchange rate

The floating region of the ASEAN Dollar exchange rate will be a 5% upper and lower tolerance limit centred on the exchange rate on the first day of the introduction of the ASEAN Dollar. Money supply and foreign reserves in the ASEAN region will be used as adjustment instruments, and forecasting techniques will be used to formulate adjustment approaches. If the exchange rate fluctuations in the forex markets exceed tolerance limits, forecasting techniques can predict these changes, and money supply and foreign reserves can be used to adjust the fluctuation size. Fluctuations can then be held within the floating region, and the stability of the ASEAN Dollar exchange rate can be achieved.

7.3.2 Fixed exchange rate

The currency exchanges among the ASEAN member countries will use a fixed exchange rate approach. We assume that the ASEAN Dollar will be introduced in the year 2012.

On the first day of the introduction to the ASEAN Dollar, the exchange rate between the ASEAN Dollar and the basket will be locked in. The fixed exchange rates among the ASEAN country's currencies will also be fixed before the end of 2011. The fixed exchange rates between the ASEAN Dollar and the ASEAN country's currencies will be calculated, and then used to undertake currency exchanges. Subsequently the calculated exchange rates will be locked in. In the ASEAN region, Malaysia is likely to be the simulation country for the ASEAN Dollar. Malaysia has used the fixed exchange rate for a long period, and has valuable experience. Thus Malaysia is capable of leading the remaining ASEAN currencies to the fixed exchange rate between the Malaysian and ASEAN currencies. The approach will be applied to other countries when they are qualified to join the ASEAN Dollar. If an ASEAN country initially insists on the use of the floating exchange rate between its national currency and the ASEAN Dollar, this country must adopt a fixed exchange rate before their formal introduction to the ASEAN Dollar. No exception is to be allowed.

7.3.3 Currency exchange

We assume that the ASEAN Dollar may be introduced on 1 January 2012. The ASEAN Dollar shall co-exist with the existing currencies of those ASEAN countries meeting the ASEAN Dollar criteria. The existing currencies will be used in cash transactions only. The ASEAN Dollar must be used as the denominated currency in transactions on the capital market for government loans and bond issues in the ASEAN region. This two way accounting system may be undertaken within the next three years. From 1 January 2015 the ASEAN Dollar, in note or coin forms, may start replacing the old existing currencies of those ASEAN countries. This replacement task may be completed before 1 July 2015. On 1 July 2015 the old existing currencies may become non-acceptable, when the ASEAN Dollar will become the only official ASEAN currency.

7.3.4 The relationship between the ASEAN Dollar and those ASEAN countries not joining the ASEAN Dollar.

In the course of implementing the ASEAN Dollar when the ASEAN countries join the ASEAN Dollar, the exchange rate between the ASEAN Dollar and the existing currencies of those countries not joining the ASEAN Dollar must be clearly settled, through not necessarily fixed. No confusion is to be allowed, or otherwise the spillover effects could damage the financial markets supported by the single ASEAN currency, and invoke adverse competition. Several pre-crisis studies have shown that cross-market linkages are weak, which negates any justification to treat the Asian countries as a block in a mean-variance maximization objective. For instance the study of Eun and Shim (1989) finds week linkages between Hong Kong and Japan by using variance decomposition and impulse response functions using a Vector Auto Regression model (VAR) to assess the strength and innovations from one market to the others from December 1979 to December 1985. The findings of Lee, Petit, and Swankoski (1990) study investigating the daily return relationships among Korea, Singapore, Hong Kong, Japan and Taiwan from January 1980 to December 1988 suggests that the returns on the Asian exchanges are segmented. Also a continuation work of Eun and Shim, Chowdhury (1994) uses a VAR to study the stock market interdependencies in four Asian countries (Hong Kong, Singapore, Korea and Taiwan) from January 1986 to December 1990. The authors do not find significant links between these four stock markets; though the first two were responsive to financial and technological innovations in the US and Japan. These findings were corroborated by other similar studies from Chan, Gup and Pan (1992), Defusco, Geppert and Tsetsekos (1996), Liu and Pan (1997) and Agarwal and Agarwal (2001).

VIII. The Policy of the ASEAN's International Trade

The policy of ASEAN's international trade may be initialised and driven by the AECC. The policy should be an extension of the ASEAN's foreign exchange policy. The aim is to maintain a balanced international income and expenditure account, a balanced ASEAN current and capital accounts, and a stable exchange rate of the ASEAN Dollar. The scope of section 8 consists of the various economic activities undertaken between ASEAN

residents and foreign residents over a specific period. Decision about international trade policy may depend on movements of the international balance sheet. The ASEAN Bureau of Statistics need to regularly complete this balance sheet, and analyse the dynamics of the international income and expenditure. Details are provided in the following table - monthly balance of payments.

Table 1
Monthly Balance of Payments

Items	Current month balance	Previous month balance	+ or – %	Reasons/Comments For change
A. Current Account[1]				
Goods; export f.o.b				
Goods: imports f.o.b				
Balance on Goods				
Services: credit				
Services: debit				
Balance on Goods and Services				
Income: credit				
Income: debt				
Balance on Goods services, and income				
Current transfers: credit				
Current transfer: debit				
B. Capital Account[1]				
Capital account: credit				
Capital account: debit				
Total, group A plus B				
C. Financial Account[1]				
Direct investment abroad				
Direct investment in ASEAN				
Portfolio investment assets				
Equity securities				
Debt securities				
Portfolio investment liabilities				
Equity securities				
Debt securities				
Other investment assets				
Monetary authorities				
General government				
Banks				
Other sectors				
Other investment liabilities				
Monetary authorities				
General government				
Banks				
Other sectors				
Total, groups A through C				
D. Net Errors And Omissions				
E. Reserves				

Note: 1. Services denote invisible trade, which comprises
1.a) Transport services including passenger transportation, goods transportation, and others such as airport and international harbour fees
1.b) Tourism

1.c) Other services including communications, building, insurance, finance, information technology, patent charges, triangular trade, operations and leasing, commission charges, personal, cultural and leisure services and government services.
2. Income includes the investment income received from the forex assets of the ACB, and the investment income including share income from the non-ASEAN region by the ASEAN residents.
3. Expenditure includes share income in the ASEAN region by the foreign residents and interest paid to foreign residents in the ASEAN region by international monetary institutions.
4. The ASEANBS will complete this preliminary balance of payments within the last ten days of each month, and submit it to the AECC for approval
5. Women are particularly welcome to be involved in editing this balance of payments. Women are cautious, responsible and generally have a clear mind.

8.1 The use of the foreign reserves

The ACB is to be responsible for the use of the foreign reserves, which is the most important item in Table 1. First the ACB needs to ascertain the safe level of the foreign reserves. Unless it is absolutely necessary, the foreign reserves should not go below this safe amount with 5% variation. The amount of the foreign reserves in excess of this safe level is called the buffer amount. The ACB can use the buffer amount to achieve its policy targets. One approach is for the ACB to distribute and loan (the excessive amount) to privately operated business and industry in the following priority order.

a. The new export-oriented industry, which uses foreign exchange to purchase overseas skills, equipment and plant. This industry may have the first priority for use of the buffer amount of the foreign reserves
b. Import-replacement industry, which produces goods for the domestic market to substitute for imported goods. If this industry needs to purchase overseas skills, equipment and plant, then this industry may have the second priority
c. On-going and established industry which produces goods for the domestic market. If this industry needs to purchase overseas skills, equipment and plant, then this industry may have the third priority.
d. Any other as the ACB may decide.

The ACB can set different loan interest rates for those three above-mentioned industries. If an industry cannot obtain the foreign exchange loans because there is an insufficient amount of buffer foreign exchange, the industry can reserve loan rights until the buffer foreign reserves become available.

8.1.1 Special bonus

Firms which undertake to establish, or operate, business in Vietnam, Cambodia, Laos, and Myanmar may be offered a special bonus. The ACB should provide interest-free foreign exchange loans to such firms for purchases of overseas skills, equipment and plant. The ACB should also introduce the concept of a single market to avoid unnecessary business overlapping and competition.

8.2 Free Investment

The ASEAN Coordinating Committee on Investment held its 17th meeting in Indonesia from 27th-28th January 2003. Brunei, Thailand, Indonesia, Philippines, Myanmar, Singapore and Malaysia agreed to open their manufacturing industry to all ASEAN member countries from 1st January 2003. Investors in manufacturing industry from the ASEAN region may be treated as local citizens. In addition, Vietnam, Laos and Cambodia agreed to adopt this approach from 1st January 2010. From 2020, those agreements will be applied to investors from all industries and promote free flows of capital, skilled workers, experts and technology. The zero tariffs and the ASEAN Dollar are scheduled to be introduced in 2010. Those approaches will provide attractive elements in the process of free investment in the ASEAN, and accelerate overall progress. Further, the foreign exchange loans provided by the ACB are expected to speed up the development of ASEAN's manufacturing industry, and thus add a new group of participants to ASEAN's international trade.

8.3 Free channels of international money to the ASEAN

Singapore and Brunei are two international financial centres in the ASEAN region. Brunei operates a favored tax system to offshore companies and free of foreign exchange control. Thus Brunei has quickly developed into a new international financial centre, and outperforms Singapore. A large amount of international money has been attracted to Brunei, and a large number of international companies are registered in Brunei. Those companies can avoid taxes required in their original registration country, without paying company tax in Brunei. Thus those companies carry a lighter tax burden than those registered in other ASEAN countries, and even pay lower tax than Hong Kong. Measures deserving of note are as follows

a. Permit a company to use a Chinese title
b. Not require registration of a company's capital
c. Allow for protection by the international commercial laws
d. Permit an offshore company to develop and operate business and investments
e. Obtain the support of the internationally large banks to provide all financial services.

The ASEAN region comprises a large hinterland, and thus has an excellent potential to undertake the development of finance, insurance and investments.

IX. Measurement of the evolution of financial market integration

As a further study, we aim to produce indicators for the ASEAN region. Research will be undertaken on complex and evolving systems of financial market integration, which often comprise a large number of interacting components. The results will improve understanding of the behaviour in ASEAN financial markets and produce improved indicators of financial integration.

In the next phase of our study, we intend to empirically evaluate the usefulness of the indicators according to three criteria. First, the economic impact of the indicators and the

consistency with market developments. Second, the availability of data needed for constructing the indicators and the ease with which these indicators can be regularly updated. Third, the reliability of the data on which the indicators are based. After the evaluation, recommendations will be made on measuring financial integration in the ASEAN region.

In addition to 'point estimates' for the indicators, we will also produce confidence intervals, which will be generated using double bootstrap and/or moving block bootstrap procedures. Such a development is likely to enhance the usefulness of the indicators. A comparison will be undertaken between the indicators produced by the improved methodologies and those reported in previous studies.

Economic and financial integration indicators will be applied to measure the following three broad financial categories in the ASEAN countries:

A) Credit and bond market integration and cointegration to establish the nature of short and long-term co-movement;

Traditional tests for capital and bond market integration have been focused on the examination of interest rate differentials among regional markets using the covered, uncovered or real interest rate parity conditions. This approach works well for financial markets under a common currency where there is no risk of currency movements. For testing integration of capital and bond markets in different currency areas, however, approximations will be required for the expectations of future currency movements that are involved in the above parity conditions. Such approximation often yields significant measurement errors (Cavoli, Rajan and Siregar, 2003).

In recent studies, VECM modelling has been utilised to measure capital and bond market integration (Kleimeier and Sander, 2001). This concept is based on the

requirement that, if credit and bond markets are integrated, interest rates among different countries should exhibit a long-term equilibrium relationship, despite the presence of short-term deviations.

Although the adoption of the cointegration theory, and hence the VECM, has significantly improved the efficiency of integration indicators for credit and bond markets, further improvements are achievable by incorporating newly developed modelling techniques, such as the zero-non-zero patterned VECM, the forgetting factor and financial neural networks. As demonstrated by Penm et al (1997), the zero-non-zero patterned VECM produce superior estimates to the traditional full-order models, especially in small samples. The forgetting factor is a data weighting process that gives more weight to recent observations and less to earlier data. The estimates so obtained are superior to those from conventional methods (Penm et al 2002). Some recently developed financial neural network techniques are also expected to result in improvements in the estimation (Penm et al 2000).

B) Stock market integration and cointegration to establish the nature of short and long-term co-movement; and

Over the past decade, financing through stock markets has increased its importance in developing countries. Consequently, another measure of financial integration of regional capital markets involves examining co-movement in stock market returns. Tests for stock market integration have been focused on correlation or Granger causality tests among returns in regional stock markets. Recently, cointegration theory has also been utilised in examining integration in international stock markets (Ratanapakorn and Sharma, 2002).

In this project, we intend to construct financial neural networks and VECMs to examine the degree of integration in ASEAN stock markets. Implicit in this process is the identification of the relevant influence of local and global risk

factors on the returns for each market. Research on these issues will contribute to an improved understanding in the area of investors' behaviour and finance.

Issues that we would like to address in this part of the project include the possible existence of time varying risk premium and/or structural or evolutionary changes in ASEAN stock markets (Bekert, and Harvey, 1995). The empirical findings resulting from this examination will have important implications for the estimation of financial integration indicators.

C) Exchange rate market integration and cointegration to establish the nature of short and long-term co-movement.

An important element in regional financial integration relates to exchange rate market integration in the region. Previous studies have attributed the presence of risk premium in credit, bond or stock markets to exchange rate volatility. Hence, the effect of currency movements on regional financial integration needs to be investigated.

For currency markets, we propose to examine, with a systems approach, the presence of long-term purchasing power parity conditions among regional currencies (see Penm et al 2003); the short-term 'spill over' effect of the volatility among regional currencies; and the implications of currency volatility on regional capital and equity markets.

For the 'spill over' effect of currency volatility, we intend to examine empirically the channels of 'spill over'. This issue is complicated by the large number of markets involved in the examination, combined with the possibility of time-varying relationships. The investigation of time-varying relationships in 'spill over' will be another key component of this proposed project.

To examine the effect of currency volatility on regional capital and equity markets, focus will be placed on market returns that will be decomposed into risk free rates and risk premium factors. We intend to study the linkages between the risk premium and currency volatility, as well as co-movement between the risk free rates in regional markets. Brailsford et al (2001) provided empirical evidence of the influence of exchange rate movements in equity market fluctuations for some Asian markets. The approach adopted in their study will also be useful for this study.

X. Conclusion

Adverse shocks in the last one decade followed by sustained economic growth in most Asian economies has regained the confidence in a stronger and stable Asia. The revival has been sponsored by growth of exports, self sufficiency, conservative approach along with the welcome of modern means of financing growth and consumption. A large proportion is also contributed by increase in the government spending for infrastructure development and growth. Given the attention paid to financing issues and the volatility in capital flows observed in the last five years investment, bank lending and per capita growth has not seen the expected rise. This weakness has been addressed due to some of the negativity due to crisis-affected economies. Some may consider this as negative; however, we believe it is a needed correction for a stable and strong foundation for sustained growth in future.

Our research findings in the article titled "A Proposal for 'A Common Financial Market for the Asia-Pacific'" proposed the framework of a single currency in Asia-Pacific[6]. Subsequently finance scholars have shown an enthusiastic response [Penm et al (2003)]. There are many countries in the Asia-Pacific region, and the wealth gap between poorer and richer nations is large, hence the progress of the establishment of a single currency in

[6] SSRN Networks - http://papers.ssrn.com/sol3/papers.cfm?abstract_id=322961

the Asia-Pacific will have difficulties. Consequently we can reduce the scope of research initially, and start working on the ASEAN region, by selecting Malaysia as a prime experimental country for the ASEAN Dollar. After a preliminary successful outcome is achieved, we can then progressively extend the approach to remaining ASEAN countries. This strategy is likely to be the most effective. We use the experience of the introduction of the Euro as a blueprint, and then undertake modifications according to the economic situation of the ASEAN region. We also select the simulation approach, and progressively incorporate experience gained in this way to improve its performance. Then the ASEAN Dollar will be officially introduced. In particular, we use the monetary arrangements, foreign exchange policy, international trade policy and forecasting techniques (The Central Banks of China (Taiwan) Annual Report 2002) to demonstrate the conception of the research.

Economic performance in the Asia-Pacific region (excluding Japan) has been impressive, with real GDP increasing by over 6 percent in 2002, and the smaller relatively open economies turnaround relative to 2001. This strong growth - at a time when the recovery in industrial countries has been relatively week - has raised the issue of whether Asian economies have become less reliant on demand from outside the region following the WTO-linked opening of China and increased inter-regional trade. With the rapid export growth seen in the first half of 2002 now slowing, the question of whether growth in Asia has become more self-sustaining is important, particularly if the weakness in the global electronics sector evident since mid-2002 persists.

In this literature, the theoretical models produce no general, univocal result regarding the desirability of a structure with an independent central bank versus one with a dependant monetary authority. In fact, considering the industrialized countries, while the relationship between independence and control over inflation seemed sufficiently robust and convincing (Cukierman, 1994; Berger, de Haan and Ejffinger, 2000; Alesina and Gatti, 1995), the relationship between independence, on the one hand, and fiscal and real

variables(Cukierman, 1992), on the other, was far from certain. Hence, the theoretical cost-benefit analysis of alternative monetary regimes could not be considered conclusive. If we apply these models to the case of ACB, we have to conclude that the establishment of a ACB could improve the inflation performances in the countries member of the ASEAN Monetary Union, but we do have not at the moment have any theoretical robust proof that the establishment of such independent central bank will improve the fiscal discipline as well as – more important in the area? – the growth performances. Though, the presence of FRB in US, ECB in Europe, RBI in India are indicative of a positive signal.

Furthermore it would be nice to stress that the above theoretical conjectures have been verified with comparative, institutional and empirical analysis. After constructing indices of independence of the central banks[7], and having historical alternative models of independent and dependent monetary authorities (Toniolo, 1988), the literature attempted to determine whether the degree of legal independence could be considered an independent variable in explaining important macroeconomic phenomena: inflation, deficits and public debt, income and growth (Alesina and Summer, 1993, Cukierman, 1994 and Berger, de Haan and Eijffinger, 2000). The empirical results confirmed the theoretical thesis.

The question of whether The ASEAN Dollar should be allowed to proceed is vital. This primarily rests on the judgment as to whether society is ready for greater economic freedom, volatile competition and reduced controls. On the face of it, these decisions seem to depend solely on those who govern society. However, it is society at large which determines whether this will succeed, based on the natural law "Survival of the fittest".

[7] After the seminal central bank independence indices published by Grilli, Masciandaro and Tabellini (1991) and revised in Masciandaro and Spinelli (1994), followed by Cukierman indicators (1992), different indicators were proposed; for a discussion see Berger, de Haan and Eijffinger, (2000).

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