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# Lessons from the EMU for Asian Regional Integration

## **Comments**

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# **Lessons from the EMU for Asian regional Integration: An Economic Perspective**

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## **ABSTRACT**

We analyse the potential costs and benefits of the EMU to assess the economic issues facing Asian countries considering deep monetary cooperation. The EMU is facing an Eastward expansion into Central and Eastern Europe; a more disparate group of countries than the original EMU of 12. East Asia, similarly, includes countries with great differences in income level and economic structure. There is a question to what extent lessons from the current EMU extends to a group of countries with very different economic structures as well as political systems.

We pay particular attention to two kinds of economic benefits and costs of the EU that do not appear much in conventional economic analysis. First there are benefits and costs of harmonization in different areas including the monetary area. Second, for many countries membership in the EU can provide a kind of insurance against domestic institutional, legal and political weaknesses. Although we emphasize economic arguments it is necessary to recognize that the EU is very much a politically motivated project. Politics, however, may well be the biggest obstacle to an EU like system in Asia.

*“Great Monetary Union—Pity about the economy”  
Martin Wolf in Comments on Wyplosz (2006)*

## **Introduction**

Debate about regional integration in Asia has been inspired by the events in the EU; in particular, the formation of the EMU in 1999 can be seen as a success in itself and shown that fixing exchange rates irrevocably is a policy option. Since the aversion to flexible exchange rates is widespread among Asian policymakers, the question arises whether a policy initiative like the EMU can be implemented in East Asia as well.

The pressures on Asian countries with respect to currency policies have often been spotty and even contradictory. The current constellation of pegged rates (e.g. China, Singapore and Hong Kong pegged to the dollar, primarily, and South Korea pegged to a basket of currencies) does not appear to have permanency and stability. China is being pressured to float its currency while other countries simultaneously are encouraged to narrow the bands of their pegs. China has begun to change the peg policy having realized that the current structure is simply not sustainable.

The lessons from the last decade suggest that Asian financial markets are crisis prone and that pegged exchange rates in the region are fragile indeed. The increasing economic interdependence generated largely through trade and capital flows has sharpened the interest in a regional approach to currency issues. One alternative is a full-fledged monetary union like the EMU but an alternative arrangement for irrevocable fixing is dollarization. Softer forms of monetary cooperation are of course also available..

In this paper we analyse the potential costs and benefits of the EMU to assess the economic issues facing Asian countries considering deep monetary cooperation in East Asia in particular. The EMU is facing an Eastward expansion into Central and Eastern Europe; a more disparate group of countries than the original EMU of 12. East Asia, similarly, includes countries with great differences in income level and economic structure. There is a question to what extent lessons from the current EMU extend to a group of countries with very different economic structures as well as political systems.

We pay particular attention to two kinds of economic benefits and costs of the EU that do not appear much in conventional economic analysis. First there are benefits and costs of harmonization in different areas including the monetary area. Second, for many

countries membership in the EU can provide a kind of insurance against domestic institutional, legal and political weaknesses. Although we emphasize economic arguments it is necessary to recognize that the EU is very much a politically motivated project. Politics, however, may well be the biggest obstacle to an EU like system in Asia. The benefits and costs discussed here have a strong political component in that they include institutional aspects of being a member vs. remaining a non-member.

Asia is well advised to consider the various mechanisms for political coordination and integration. Structures like the EU and the EMU are but one option. They may have worked well for those who joined and may well be very attractive for those in line, but they need not necessarily be copied by Asia. However, Asia needs to learn from their experiences, which we deal with here. The benefits and the costs of an EU and EMU systems may well be different depending on the size of the country. We distinguish between the EU and EMU decisions because participation in the EMU need not follow from EU membership. There is substantial confusion in the literature about effects of the EMU per se vs. the effects of EU membership more generally.

Many long term economic costs and benefits of EMU-membership are nearly impossible to quantify since we do not know how the EU and its institutions will develop beyond the time horizon of a few years. This uncertainty is compounded by the accession of 12 countries with very different economic structures and institutions. We are not attempting a quantitative evaluation here but focus on identifying costs and benefits that may accrue over different time horizons. An important consideration is that EMU is only one aspect of an integration process that has been going on for decades and encompasses a wide array of political, public and legal institutions.

An evaluation of costs and benefits of monetary integration requires also a reference point identifying what will happen if there is no currency union. The question we ask is whether the benefits of EMU membership can be obtained by means of alternative arrangements at lesser or higher costs. The corresponding question applies to Asian economies considering joining a currency union. It could be that the interests of some countries will be best served by keeping an independent economic system that allows domestic institutions to develop to enhance economic growth and welfare based on lasting comparative advantages, and by the pursuit of independent fiscal and monetary

policies. In other countries the political situation may prevent growth oriented institutional reforms as a result of interest group pressures. In these cases, participation in regional integration initiatives can be the factor that makes some reform possible although the proposed institutional structure need not be the most suitable for each specific country. Thus the economic effects of regional integration efforts depend on a combination of political and economic factors in each specific country, and they may be hard to always sort out accurately.

The recent rejection of Lithuanian participation in the EMU indicates that the decision to join the monetary union is not up to the individual country alone.<sup>1</sup> Similar concerns can arise in Asia. A country's choosing to join integration efforts need not qualify by criteria of potential partners. Conflicts of interest can arise, since an important consideration for some countries is to join integration efforts in order to obtain an "insurance" against domestic political or institutional weaknesses while other countries need not be willing to offer this type of insurance.

The rest of this paper discusses strengths and weaknesses of the EMU before applying the lessons to Asia. The paper is divided into 5 sections. Section 1 provides an overview of the different aspects of harmonization and insurance in Europe, as well as of political and economic forces shaping integration in economic and political dimensions. The broad categories of costs and benefits and alternative arrangements are specified in this section. Macroeconomic adjustment issues arising as a result of *monetary policy harmonization* in the EMU is the topic of Section 2, while microeconomic consequences of *payment system harmonization* in the EMU are discussed in Section 3. The costs and benefits identified in the previous sections are discussed from an Asian perspective in Section 4. Finally, we summarize in Section 5 the implications for an Asian monetary union and currency arrangements in Asia.

## **1. Dimensions of Harmonization and Insurance in the EU**

One of the cornerstones for the integration of Europe was the Maastricht Treaty established in 1991. The treaty provides for "... a single currency (the euro); provides the EU with more power to deal with such matters as the environment, education, public

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<sup>1</sup> Lithuania's inflation rate at 2.63 percent in 2005 was marginally higher than the average inflation rate of the three best inflation performers in the EU. The average for these countries was 2.60 including non-EMU, floating rate Sweden.

health, and communications among members; establish a common foreign and defence policy; and create greater cooperation between the 12 police and justice systems”.

The introduction of a single currency has been viewed as the capstone for the Internal Market project. From an economic point of view, the Internal Market project is the key factor in an analysis of economic costs and benefits of the EU. This project is intended to create an economically integrated region by means of the “four mobilities”; mobility of goods, labor, capital and services. Mobility in these respects is then expected to inevitably lead to “ever increasing integration”. The four mobilities are by no means perfect, however. The recent referendum on a proposed EU constitution in France, in particular, and the disagreements within the EU with respect to a mobility enhancing Services Directive, indicate that there is strong resistance to economic integration in several areas.

While the internal market project initially was focused on explicit barriers to mobility within the EU, it was soon discovered that differences in rules and law for economic activities hinder the integration process. For this reason the call for harmonization of regulation, laws and other institutions in a number of areas has been increasing on the grounds that differences create barriers to mobility. The formation of the EMU can be seen as harmonization of monetary policy making institutions and the means of payment.

The EU has the power to harmonize rules in many economic areas by means of Directives agreed upon in the Council of Ministers. Individual countries are obliged to introduce the Directives in their own legislation. Some areas remain outside the scope of EU legislation, however. Fiscal powers remain on the national level as do education systems, health care systems and social legislation more generally. These systems can nevertheless be affected by the EU in important ways, since mobility of, for example, labor, constrains the ability of the individual country to tax.

Political and other non-economic aspects of the EU cannot be neglected. The Copenhagen criteria for EU membership refer to democratic institutions, the rule of law, and human rights. These must be met by each country before joining the EU. The Maastricht Treaty includes calls for integration in areas of defence and security. Political considerations determine how far integration can go in these areas. But even if formal

integration does not go far with respect to security and defence issues, there are important political consequences of membership in the EU. Benefits or costs of a political nature may well overshadow the economic ones, especially for Central and Eastern European countries. An EU-membership may well provide the ultimate insurance policy against reversion to communism or Russian domination to a higher degree than NATO membership alone. If there is an economic price to EU membership, it could be easily overshadowed by political considerations. For example, the ‘Keep the Bear at Bay’ strategy is clearly dominant in Eastern Europe considering its history between 1945 and 1989.

Another type of political insurance of EU membership refers to political and legal institutions. Several new members do not have strong democratic traditions and their legal institutions are weak. EU membership enhances the credibility of democratic political institutions and the legal framework of the EU provides some access to the European court system in cases where fundamental rights of individuals and firms are violated. The political importance of this type of insurance varies across states. This variation can be illustrated by the differences in attitudes to sovereignty of political and legal institutions across the EU.

Citizens’ trust in domestic political institutions, government authorities, and legal institutions varies greatly within the EU and this variation has increased with the Eastward expansion. For example, corruption perceptions vary greatly across both old and new EU members and these perceptions could be important for the willingness to abdicate sovereignty in a number of areas. The votes in recent referenda in EU member states provide some guidance with respect to citizens’ perceptions and attitudes towards the EU. Denmark in 2002 and Sweden in 2003 voted ‘NO’ very strongly to participation in the monetary union. The UK would likely vote NO if a referendum were held today. These countries are characterized by a relatively high degree of trust in domestic institutions and faith in the political forces shaping them. The rejection of the EU's constitutional proposal places the Netherlands in the same category.

The ten East European countries that joined in May 2004 all voted YES rather enthusiastically. These countries became democratic recently, corruption is still widespread, and legal institutions are weak. Clearly, these countries perceive the EU as a



tool for rapid strengthening of institutions. Among the older 15 EU countries, those bordering on the Mediterranean probably belong to the same group. France, however, may have to be placed in a separate category. Her citizens seem to have rejected the constitutional proposal primarily based on the fear of freedom of mobility. For example, in the area of services there is fear that the freedoms would lead to excessive "Anglo-Saxonization" of the EU and its institutions.

Table 1 lists three political benefit-cost categories of EU integration. The first category is security and defence; the second is sovereignty, and the third is institutional harmonization. It is hard to see any security considerations entering the issue of monetary integration but the EMU raises issues of both sovereignty and institutional harmonization. Abandoning a national currency can be viewed as a cost from a political point of view albeit an emotional one. Political costs and benefits of institutional harmonization in the monetary area refer to the political legitimacy of the monetary authority and the monetary policy pursued. The German Bundesbank had strong legitimacy before the EMU was formed while the Italian central bank had very weak legitimacy. Thus, joining the EMU was associated with political costs in Germany but with political benefits in Italy

With this background we turn to a discussion of economic costs and benefits of the monetary harmonization implied by participation in the EMU. In the next section we discuss *monetary policy harmonization* and consequences for macroeconomic adjustment in the EMU (summarized in Table 2.). Thereafter we turn to *payment system harmonization* and consequences on the microeconomic level of the EMU (summarized in Table 3). Other important aspects of harmonization in the EU, in particular, harmonization of trade barriers, regulation and legislation within the Internal Market, are discussed only to the extent there is a link to monetary integration.

The alternative monetary arrangements we consider from the point of view of a prospective EMU member are a very hard peg within, for example, a Currency Board, and floating exchange rates.

## **2. Monetary policy harmonization in the EMU; The macroeconomic perspective**

Participation in the EMU implies harmonization of monetary policy through the harmonization of monetary policy making institutions. The first attempt at a European Monetary Union was based on The Werner Report of 1970. As Wyplosz (2006) states,

the arguments for a monetary union in this report were primarily political. Close economic integration was viewed as a prerequisite for political integration, and a common currency was viewed as a necessary condition for economic integration. The Delors report, *One Union, One Money*, published by the European Commission in 1988, built on the Werner report, elaborated on the economic arguments in favor of a monetary union. The basic argument was that free capital flows make any exchange rate regime along the spectrum between irrevocably fixed rates in a monetary union and freely floating rates, unstable. If countries retain their rights to change pegged rates, speculative capital flows could threaten exchange rate stability. Credibility of fixed rates could be obtained only in a monetary union. Floating exchange rates were viewed as unacceptable if the objectives with respect to economic integration were to be achieved.

Wyplosz (2006) points out that the disadvantages of a monetary union were passed over rather lightly in the Delors report although the risk associated with asymmetric shocks were mentioned. He argues that the omission of important elements of Optimum Currency Area (OCA) theory in the Commission's argumentation for a common currency "is the Monetary Union's original sin." The OCA theory spells out criteria for a country's choice of exchange rate regime. This theory was well-developed and rich already in the late 70's with a number of criteria for exchange rate regime choice although it was not formalized into an easily applicable set of rules balancing the different criteria (see e.g. Tower and Willett. 1976).

The OCA literature beginning with Mundell (1961) has grown over time to incorporate a large number of criteria, including political economy arguments, for a fixed exchange rate versus a flexible rate. In this literature a flexible regime need not be a "clean float" but it includes various degrees of adjustability of the exchange rate to short run market conditions. In other words, a fixed rate is interpreted as a regime wherein exchange rate adjustment is not used as an adjustment mechanism. (See, for example, Tower and Willett, 1976, and Wihlborg and Willett, 1991). The OCA literature has in common that the optimum currency area is determined as a trade-off between benefits of exchange rate flexibility in terms of macroeconomic adjustment, and microeconomic benefits of a common currency under a permanently fixed exchange rate. In Table 2

*Output Variability* and *Adjustment and Policy Instruments* are the main benefit/cost categories commonly discussed in traditional OCA analysis.

In response to increasing inflation rates during the 70s monetary theory and OCA analyses increased their emphasis on the linkage between the exchange rate regime and inflation (*Inflation* in Table 2). Simultaneously, the theory of monetary policy began to incorporate the game theoretic concepts of time-inconsistency and credibility (e.g. Kydland and Prescott, 1977, and Barro and Gordon, 1983). The main point in this literature is that abandoning attempts to always achieve “first-best” using discretionary policies can be welfare increasing, because attempts to reduce unemployment require ever increasing inflation once the discretionary policy measures become anticipated. Sticking to a rule for monetary policy in spite of short term costs leads to credibility of the rule over time, and a welfare gain relative to the ineffective use of discretionary policy in response to short term fluctuations in the economy.

The EMU, establishing irrevocably fixed exchange rates internally, and a supra-national monetary policy-making authority, is a way for member countries to obtain credibility provided the union’s central bank conducts a low-inflation policy with credibility<sup>2</sup>. It is far from likely, however, that the EMU is indeed an OCA in terms of labor market flexibility and that the EMU leaders necessarily know which countries should be included in order to achieve that optimum area. Joining the EMU could therefore be costly in terms of macroeconomic adjustment.

Several economists have pointed out that the costs of the EMU in terms of macroeconomic adjustment are mitigated and even eliminated to the extent OCA criteria for fixed exchange rates are endogenous. Such endogeneity could take the form of increased labor mobility and increased real wage flexibility as a result of the nearly complete credibility of fixed exchange rates within the EMU.

Evidence on endogenous institutional development enhancing wage flexibility and mobility in labor markets in particular is reviewed and discussed in De Grauwe and Mongelli (2005). Their “cautiously optimistic” assessment of endogenous OCA criteria is probably the most positive one within an expanding empirical literature on labor market adjustment in the EMU. An OECD Policy Brief on the Euro Area (July 2004) states that

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<sup>2</sup> See de Grauwe (1996)

“Notwithstanding some progress made since the mid 1990s....Labour markets are in urgent need for reform.” Most economists (e.g. Blanchard and Giavazzi, 2003, and Eichengreen (2002)) studying the subject agree that wages tend to be rigid in most of the “old EU”, and that both cross-border and intra country labor mobility is seriously absent. Duval and Elmeskov (2005) warn that the EMU may actually weaken the incentives for structural reforms in the larger member countries.

The recent strikes and riots in France in response to a proposed relaxation of constraints on laying off young people offer a reminder that it is politically very hard in many countries to change labor market institutions that benefit established groups. If there is cross-border labor mobility in the EU, it is confined to the relatively well-educated professional groups. Ironically, governments generally seem to consider these groups particularly valued citizens and discourage “brain drain” by means of tax policy in particular.

The most recent members in Eastern and Central Europe with less advanced social insurance system may have more mobile labor forces but these labor forces have found newly erected barriers in 12 of the 15 older members. There is a widespread fear in the latter countries that a wave of “cheap” labor will move in from the new members. These attitudes of practical politics stand in contrast to the stated objectives of expanding the EMU to include new members.

The verdict on endogenous flexibility in the long run is still out as noted in Willett, Permpoon and Wihlborg (2006). They conclude that the ambivalent political attitude towards labor mobility in many countries and the evidence so far indicate that the traditional OCA criteria must be taken seriously for the foreseeable future.

#### *Alternatives to joining the EMU*

Even if an argument can be made in favor of the EMU as a well-functioning currency area if endogenous institutional development is taken into account, there are alternative arrangements available with possibly more favorable benefit-cost ratios.

The Currency Board (CB) is one realistic alternative arrangement for the relatively small economies in Eastern and Central Europe and there are experiences to build on if new CBs are to be developed. The CB is similar to a gold standard with convertible currencies serving as the anchor instead of gold. The currency in circulation,

and reserves held by banks against time and demand deposits are backed by foreign currency reserves. The exchange rate is fixed to a specific currency and anchored in legislation making realignments difficult and politically costly. The fixity of exchange rates is presumed to be the foundation of stable prices and credibility in the market place. In most CBs, there is unlimited convertibility of the local currency. In Estonia, full convertibility between the Estonian Kroon and the reference currency has been in effect in Estonia since 1992. The money supply grows and shrinks with foreign exchange reserves in an open economy with no restrictions on trade, capital flows and FDI.

Although the CB implies a less irrevocably fixed exchange rate than a currency union it is possible to make the exchange rate fixity highly credible by means of appropriate legislation. Examples of credibility enhancing legislative measures in Estonia are shown in the Appendix. The credibility of a CB depends on the strength of the institutions preventing the CB managers from trying to influence the monetary base, and to change the exchange rate.<sup>3</sup>

The costs of a CB relative to the EMU in terms of lesser credibility need not be substantial and must be balanced against the potential benefits of being able to abandon the CB in an economic crisis requiring substantial factor-cost adjustment relative to trading partners. The value of this benefit could be particularly large in Eastern and Central Europe where the structures of the economies differ substantially from the mature economies of the older members. These differences increase the likelihood of substantial asymmetric shocks requiring adjustment of relative cost structures.

An alternative route to credibility of monetary policy for the individual country is to strengthen the political independence of the central bank by constitutional and other legislative means while allowing the exchange rate to float. There is a large literature documenting that independent central banks with a price stability objective are able to achieve substantial credibility and relatively low inflation without having to suffer less growth or higher unemployment over time (see De Grauwe, 1997). The institutional requirement for independence may be stronger than those required for a CB arrangement but not beyond the politically feasible in countries where laws are enforceable.

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<sup>3</sup> See, for example, Sweeney (1998) for a discussion of determinants of a currency board's credibility

All members of the EMU must also establish central bank independence constitutionally. The difference between the country inside and outside the EMU is that membership in the EMU removes monetary policy making further from domestic political forces (Burdekin, Wihlborg and Willett, 1992). This may enhance the credibility of the ECB. On the other hand, the incentives of national governments to run fiscal deficits as members of the EMU in combination with a weak “Stability Pact” can damage the credibility of the ECB. Here is a case when insurance provided by the EU can damage the credibility of the ECB. Specifically, if the EU provides implicit insurance of the national debt of individual members, the incentives of member states to run deficits increase.

There are a number of countries for which the central bank’s stated political independence is not sufficient for credibility of an anti-inflation policy to be achieved outside a monetary union. Like a credible CB, *de facto* independence requires institutional and social support. The former may be, for example, contractual incentives for central bank board members to pursue a low inflation policy, and contractual safeguards about their positions after leaving the central bank board. Social support may take the form of approval within the social elite of independent conduct while a board member. Some transition economies and many developing countries lack both the institutional support and the social traditions that could ensure *de facto* independence even if the central bank is made formally independent of political authorities. Thus, formal central bank independence under exchange rate flexibility is not sufficient to gain credibility in these countries. Even a strongly pegged exchange rate may be insufficient as long as the central bank has the authority to conduct discretionary monetary policy.

It is clear from the above discussion—summarized in Table 2--that there are alternative paths to achieving credibility, and that there are costs of retaining credibility inside or outside the EMU. Market participants are always suspicious and in need of a confirmation. It is performance and its consistency that garners credibility. That performance is not necessarily a function of the size of the country, nor its affiliation with the EU (EU members have often behaved erratically and outside the confines of the EU). A case in point is Estonia: a country that has achieved international economic credibility well before its admission to the EU. Other countries may be more susceptible to short

term political pressures even if formal monetary policy independence has been established. Membership in the EMU could then be seen as an *insurance* (see Table 2) against the failure of domestic institutions.

The mutuality of dependence within the EMU can support credibility if its institutional strength is derived from the relatively disciplined countries with strong institutions but serious problems can arise if the less disciplined countries set the policy tone. The seemingly harsh treatment of Lithuania's application to join the EMU can be due to the fear among the original EMU participants that their monetary policy preferences would receive less weight if all the new members would be allowed in as soon as they satisfy the convergence criteria. Thus, there is an unwillingness of providing "credibility insurance" for the new EU members through monetary harmonization.

Summarizing the arguments with respect to a possible trade off between benefits of insurance and net costs of monetary harmonization, the benefits of insurance are particularly relevant for countries with weak institutional support behind a formally independent central bank. The costs of harmonization arise for countries with relatively little ability to adjust to macroeconomic shocks under a fixed exchange rate, while there are benefits in the form of enhanced credibility of a monetary policy rule. In Section 5 we return to these issues in the Asian context.

### **3. Payment system harmonization in the EMU. The microeconomic perspective**

As mentioned, the traditional OCA literature states that macroeconomic costs of fixed exchange rates should be traded off against microeconomic benefits. Table 3 lists three categories of potential benefits; *reduced costs of currency exchange*, *reduced exchange rate risk* in international trade, and *improved information contents of prices* in international trade. The Delors report put substantial emphasis on these factors as sources of benefits of a common currency. Clearly, the exchange risk- and information content components of these potential benefits would be very similar under a credible hard peg and a monetary union. The currency exchange cost would remain, however. Estimates of

these costs from before the formation of the EMU varied between 0.1 and 0.5 percent of GDP.<sup>4</sup>

The exchange risk component is often emphasized in the discussion of exchange rate regimes but most likely highly exaggerated. One reason is that derivatives markets allow hedging of short term exchange rate risk. A second and perhaps more important reason is that reducing exchange rate risk within the EU does not necessarily imply that the total risk facing a firm is reduced. Over longer time horizons exchange rate movements are related to macroeconomic shocks that exist under any regime. If so, there will be adjustment of other macroeconomic variables instead of the exchange rate.

Even if we accept the premise that there is short term exchange rate volatility unrelated to macroeconomic determinants of exchange rates in a floating system, exchange rate stability as a policy objective is often misguided. Consider total variability ( $V_T$ ) to be the sum of two components, anticipated variability ( $V_A$ ) and unanticipated variability  $V_U$ ):

$$(1) \quad V_T = V_A + V_U.$$

$V_A$  is easily and regularly incorporated in interest rate differentials and forward exchange rates in money and exchange markets.  $V_U$  on the other hand can be hedged using options-, forward- or futures contracts, or numerous methods to adjust balance sheets. Hedging can be costly, however, if markets for relevant financial instruments are not well-developed and liquid. Thus the issue of costs of exchange rate instability can be viewed as a mirror image of financial market development. Countries may choose to consider exchange rate stability an outright policy objective rather than implementing reforms contributing to financial market development.

There is a controversial issue whether exchange rate stability also promotes price stability more generally. Since price level volatility generally is strongly correlated with the inflation rate, this issue can be viewed as the question whether fixed or flexible exchange rates are most consistent with low inflation. This question was discussed in the previous section.

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<sup>4</sup> Reduced transaction costs and reduced risk in international trade leads to trade creation but there are no welfare reducing trade diversion effects occurring in response to discriminatory trade policy. A reduction of transactions costs among some countries relative to others increases trade among these countries at the expense of trade with other countries but this shift is not trade diversion, since the other countries are no longer competitive.



It is ultimately an empirical issue whether a fixed exchange rate and a monetary union contributes to trade creation as a result of reduced transaction and information costs of the type discussed. The evidence on this issue is very weak. Until very recently the evidence indicated that trade creation effects of fixed exchange rates are negligible and in some studies even reversed (Glick and Wihlborg, 1997), but more recently Rose (2000) argues that the EMU has led to and will continue to lead to very sizeable trade creation. Baldwin (2006) states that the “consensus” figure for the trade expansion caused by the EMU is 13 percent. However, Dominguez notes that this trade expansion may not have been caused by the EMU since non-EMU members of the EU experienced trade expansion of at least the same magnitude. The period since January 1999 has also been characterized by a worldwide expansion of trade. Thus, the case for substantial trade creating effects of a monetary union remains to be made in a comparison with floating rates. In a comparison with a hard peg in CB arrangement, the case is even weaker. Ultimately, openness and trade flows thrive in environments characterized by stable growth wherein political pressures for protectionism are low.

Even if exchange rate stability does not have a significant impact on trade in goods and services, a case can be made that financial markets tend to become more integrated in a currency union. The question is whether financial market integration is endogenous relative to monetary integration.

If a monetary union enhances the liquidity, depth and informativeness of securities markets, households could benefit from improved risk-sharing and firms from reduced capital costs.

A major challenge in any analysis of EMU in this respect is to distinguish between consequences of EMU and of EU reforms more broadly. We turn first to specific securities markets with a focus on effects of reduced transactions costs. Thereafter risk-sharing and payments system effects are discussed.

Bond and Equity markets. There is evidence reviewed in Mongelli and Vega (2006) that the costs associated with internationalization of bond and stock portfolios have decreased since the euro was introduced, and that investors in the EU and the EMU have increased the EU component of their portfolios relative to the domestic component. The question remains to what extent these developments depend on the euro or on

liberalization of securities markets within the EU through, for example, the Investment Services Directive. The indications so far are that the euro could be important for the integration of bond markets but less so for stock markets.

Already before EMU there was substantial foreign portfolio investment in the equity markets in Europe. The US and the UK were the major foreign investors. These countries have kept or even expanded their large role in the form of investments by mutual and pension funds. At the same time, equity markets investments have expanded in continental Europe in response to EU reforms and increased attention to corporate governance issues. Financial markets have de facto been “Anglo-Saxonized”. In this process mutual funds have expanded their role in the continental European countries. These developments are still in the early stages and they would most certainly continue with or without the euro. Forbes (2005) finds that stock market correlations within the Euro-zone have increased by 16 percent, but during the same period the correlation with the U.S. market increased by 25 percent.

The financial markets where the euro is likely to play the most important role are the markets for government bonds and potentially for corporate bonds. Dermine (2003) argues that increased substitutability of government bonds issued in different countries will lead to a Europe wide market for government bonds. The absence of differential currency risk on bonds issued by governments in the Euro-area implies that Euro-area bonds differ only in terms of government default risk, which should be reflected in yield differentials if there is no EU-guarantee behind bonds issued by individual governments. Gaspar and Hartmann (2005) show that the cross sectional standard deviation of interbank interest rates in the money markets have declined drastically as a result of the removal of the exchange risk component in cross-country interbank lending.

The existence of one or several deep markets for government bonds markets can also help contribute to the development of efficient corporate bond markets in the euro area. The German government bond can serve as an efficient benchmark for pricing of

corporate bonds denominated in euro. Although bank debt still is the dominant source of financing for firms in continental Europe the euro may play a positive role in the development of increasingly efficient markets for corporate bonds.

In the bond markets as in equity markets, the development of an infrastructure for trading and issuing securities in the EU is a prerequisite for integrated markets. The studies of equity market integration reviewed in Mongelli and Vega (2006) indicate that increased integration in the EU is part of the globalization process worldwide, as well as of increased importance of equity markets in the EU following from an increasingly Anglo-Saxon regulatory structure.

Risk-sharing: Studies in the US indicate that state specific shocks are smoothed to a substantial degree through capital markets (40% according to Asdrubali, Sørensen and Yosha, 1996). Similar studies in Europe by Marinheiro (2003) and Melita (2004) find that most of the smoothing in Europe occurs through national government budgets, and that interregional lending plays a relatively small role in the Eurozone. The expansion of stock and bond markets in Europe during the last 10 years is likely to increase the role of financial markets in risk-sharing in Europe.

The effects of EU and the EMU on trade, output and income fluctuations influence opportunities and demand for risk-sharing in financial markets. There are two dimensions to risk-sharing through financial markets. First, income fluctuations create a demand for consumption smoothing through credit markets. Second, portfolio investors seek to diversify risk of individual securities and other sources of income in order to obtain the best possible risk-return trade-off.

Increased intra industry trade increases correlations of returns across countries. Thereby, opportunities for diversification across EMU countries decreases and the demand for diversification through investments outside the EMU and the EU increases. Income smoothing opportunities through borrowing and lending within the EMU would also be relatively small to the extent economic fluctuations are correlated. Thus, with an expansion of intra industry trade risk-sharing opportunities within the EMU decline and efficient risk –sharing requires integration with financial markets outside the EMU. On the other hand, increased specialization would reduce correlations of returns within the

EMU and increase the opportunities for diversification by investing in a multi-country EMU portfolio. The need for diversification outside the EU would be less than in the previous case. Consumption smoothing can be accomplished through borrowing and lending within the EMU to the extent specialization implies non-correlated output fluctuations.

Turning to empirical evidence, Willett, Permpoon and Wihlborg (2006) present output correlations indicating that the expansion in trade has been intra industry. This observation is supported by Giannone and Reichlin (2006). Eiling, Gerard and de Roon (2005) have found that country returns in equity markets have become less volatile and more correlated in the euro area during the late 90s. Instead industry returns have become more volatile and less correlated. Thus, diversification obtained by means of cross-country diversification in the early 90s can now be achieved through cross industry diversification. This cross industry diversification cannot be obtained within each euro member but some international diversification within the euro area is necessary. Thus, reductions in transaction costs for intra EMU investments contribute to risk-sharing opportunities. Also, substantial diversification gains with respect to country risk are available through investments outside the EMU and the EU. Integration of financial markets across, for example, the Atlantic, remain important for risk-sharing opportunities and increasingly important to the extent European economies become more integrated.

Payment system effectiveness. The role of EMU in the payments system may seem obvious in the sense that the member countries abandon their individual currencies in favor of the common currency. Thereby, costs of currency exchange can be reduced. The quantitative importance of these effects is questionable and indirectly analyzed in studies of, for example, the trade effects of EMU.

In spite of the common currency, cross border payments within the EMU remain several times more expensive than domestic payments. The reason is that banking systems, and clearing and payment systems remain nationally oriented, and that legal systems differ with respect to some securities. Gaspar and Hartmann (2005) view these differences as obstacles to further integration of financial markets.

#### **4. Likely costs and benefits in an Asian currency union context.**

Wyplosz (2002) argued that the logical next step after a pegged rate is a hard peg within the context of a union of sort. He reasoned that the unholy trinity (capital mobility, independent monetary policy and fixed exchange rates) involves a clear tradeoff between policy independence and exchange rate fixity. He concluded that since all floats have been dirty, and since adjustable pegs have caused more dislocation than they have solved, that a hard peg is the answer. But the hard pegs, he argued, that the currency boards of Argentina, Hong Kong and Estonia were built upon did not work either. Khoury and Wihlborg (KW, 2006) demonstrate that this is a weak argument since it ignores the degree of orthodoxy of the CB and the level of government manipulation of money supply in the CBs. KW further demonstrated the success and its foundation of the CB experiment in Estonia, and showed that continuation with a CB may very well be preferable for Estonia in lieu of EU membership. Asian countries need to have all of these options and their implications considered with careful attention to their benefits and costs.

The benefit/cost categories listed in Tables 2 and 3 need to be evaluated for each potential currency union member to reach firm conclusions about the most suitable candidates for an East Asian currency union. This task is beyond the scope of this article but we can point to some differences between East Asian countries, the Central and Eastern European countries that recently joined or are joining the EU, and the Western European countries now participating in the EMU. We can also draw parallels between Asian countries and some Central and Eastern European countries. The latter are candidates for EMU participation and already members of the EU.

One major difference between the candidate countries for EMU membership and the East Asian countries is that the former group is joining an already functioning currency union with established institutions while the latter group does not have a plan with respect to transition to a new currency, to institutional aspects such as decision making procedures, and to the issue whether a new currency will be formed or all members will adopt one of the existing currencies like the Yen or the Rembimbi. Alternative versions of irrevocably fixed rates like dollarization, and very hard pegs like

currency board arrangements and hard pegs with cooperative intervention policies, can be considered as well.

Another difference is that the recent members of the EU are joining a broad and far-reaching integration process by becoming members of the Internal Market and associated institutions in the EU, while Asian countries have few institutional structures in common.

The countries (or provinces) under consideration in East Asia could include Japan, S. Korea, China, Hong Kong, Taiwan (if politics permit), Thailand, Malaysia, Singapore, Vietnam, Cambodia, Laos, Indonesia and the Philippines. The countries range from advanced industrialized to relatively poor developing countries. Their political systems are different and the economic structures are different. The last five countries have a relatively large share of raw materials in their international trade. In comparison with Europe, including Central and Eastern Europe, the trade of the Asian economies is oriented towards third countries like the USA to a much higher degree than the trade of European countries.

The first benefit/cost category in Table 2 for effects of monetary policy harmonization is inflation. Unlike many European countries the Asian economies have generally shown a high degree of monetary discipline. Thus, the benefit of importing credibility does not seem to have the same weight in Asia as in Europe. On the cost side policy preferences with respect to a monetary and fiscal policy mix could be very different, however. Concerns about deficit financing of individual countries has been a major issue in the EMU as well as in the Maastricht transition criteria. The latter includes a limit on the budget deficit as well as on the national debt as percent of GDP. The differences in political systems and fiscal policy making procedures are likely to be much greater in Asia than in Europe. Thus, a “stability pact” referring to limits on fiscal deficits could be harder to enforce in Asia than in Europe (where enforcement is not successful). On the other hand, the Asian countries may be less likely than the EU to implicitly guarantee each others’ national debts. Thereby, the interest rates on each individual country’s debt should be more responsive than in the European case. On the whole, inflation and fiscal discipline should not be a major concern in most of the Asian economies.

Output stability--the second benefit cost category in Table 2-- could be an issue for countries where real shocks are more important than shocks emanating from the financial sector. It is well accepted that a floating exchange rate can serve as an automatic stabilizer for real shocks. Within the group of Asian countries, this issue could be important for the relatively raw material oriented and poorer economies that do not have a very well diversified industrial structure.

Adjustment and use of policy instruments in response to shocks—the third category in Table 2—is very much a topic of OCA and, as noticed, the issue has come up in the debate about the EMU after its formation. There are three main aspects to this issue: (i) are asymmetric shocks a frequent and large concern for the currency area?, (ii) is the degree of labor mobility or wage flexibility sufficient within the currency area, and (iii) can fiscal transfers smooth consumption when different parts of the currency area is impacted asymmetrically? The fiscal transfer system is likely to be almost non-existent in an Asian currency union. In the EMU the transfer system is small relative to the situation in the USA but some methods of transfer exists. If there is little labor mobility and wage rigidity when currency members are hit by shocks asymmetrically, exchange rate adjustment is an effective policy instrument and there are costs associated with a currency union. The performance of the Asian economies in this respect varies. Large parts of most of the economies are not unionized but unions seem to be strong in some sectors in, for example, South Korea. Thus, in comparison with Europe asymmetric shocks are most likely more important but wage flexibility in most of the countries is likely to be higher. Labor mobility between countries is bound to be very low, however. Thus, the cost of giving up the exchange rate as a policy instrument depends very much on wage flexibility in the individual countries. Events during the Asian crisis indicates that exchange rates can play a positive role in adjustment.

Among the issues contributing to costs or benefits of a monetary union there is finally the insurance aspect. In the discussion of the EMU we mentioned in particular that the country with weak, inflation prone political institutions and little central bank independence could benefit from a monetary union. The currency union “ties the hands” of policy makers with respect to inflation prone policies. We noted above that most Asian

countries have shown stronger monetary discipline than many European countries. Thus, the need for this type of insurance is most likely less in Asia than in Europe.

Turning to benefits and costs as a result of payment system integration in Table 3 we have expressed scepticism about the importance of costs of currency exchange for international trade. We are similarly sceptical about the degree to which a currency union enhances the information content of prices. The currency risk issue is likely to be an important argument for policy makers favoring a currency union, however.

It is widely believed that exchange rate risk discourages trade substantially. Although we expressed scepticism on this point as well for European countries, exchange rate risk can be a greater concern in Asia where financial markets are less developed in many countries and, therefore, hedging short term exchange rate risk can be costly.

Risk sharing in financial markets is also made more costly if financial markets are not well developed. The benefits of risk sharing through international diversification within an Asian currency union could be greater in Asia than in Europe since business cycles fluctuations in the Asian economies are less synchronized by trade flows. Thus, the benefits from capital flows among the Asian countries could be large. Recent proposals to develop markets for Asian bonds for both governments and corporations indicate that financial market development is an important policy concern. Not only would there be benefits in terms of risk-sharing but corporations would have access to a deeper and more liquid market than in individual countries. The question is then whether a currency union would contribute strongly to a reduction in transactions costs and risk in financial market transactions in Asia.

The evidence from Europe indicates that bond markets indeed have become more regional and deeper after the EMU was formed. The currency union effect cannot be disentangled from effects of institutional developments, however. In the EU the harmonization of rules, increasing competition in securities markets, increased transparency of corporate governance systems, cross-border operations of brokers as well as trading platforms have progressed rapidly. We believe that these developments by far outstrip the currency risk factor in importance. This conclusion is based on the ability of non-EMU countries within the EU to take advantage of EU wide securities markets as much EMU members.



The evidence from the EU indicates that institutional reform of financial markets enabling competition and cross-border trading should be the priority if governments are serious about improving opportunities for risk sharing and corporations' access to liquid securities markets. Developments in financial markets contribute to lowering the costs of hedging exchange rate risk as well. The benefits of the creation of a currency union are themselves likely to be relatively small. These benefits would have to be weighed against the potential costs of removing a macroeconomic adjustment mechanism for countries with relatively rigid labor markets and sensitivity to terms of trade shocks.

There are less rigid exchange rate arrangements than a currency union that could allow a more favorable trade-off between costs and benefits. For example, Estonia has become one of the greatest successes among the transition economies in Eastern and Central Europe with a Currency Board (CB) arrangement. After becoming independent as a result of the break-up of the Soviet Union in 1991, Estonia quickly reformed its economy. The central bank was assigned the role of a CB in April 1992. This reform was a centerpiece in a package of economic reforms establishing a very open and liberal economy. Europe.

The potential benefits and costs of an EMU membership on the macro level for Estonia are linked to the added credibility of an irrevocably fixed rate in periods when severe shocks affect Estonia and most of Western Europe asymmetrically. The added credibility of the EMU under extreme conditions carries a cost, since the credibility is linked to the complete loss of the exchange rate as an adjustment mechanism. Under a CB arrangement the exchange rate could be changed as an "adjustment of last resort", while leaving the EMU must be considered a viable response only under desperate circumstances.

The CB as a viable and nearly equivalent alternative to EMU membership requires that the CB has high credibility. This credibility depends also on a country's ability to adjust to shocks without exchange rate adjustment. Estonia's success has been explained by flexible labor markets, high capital mobility, free trade, a well functioning financial system and a disciplined fiscal policy.<sup>5</sup> These factors contribute to the economy's ability to adjust to shocks and to the credibility of the CB. The same factors

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<sup>5</sup> See Khoury and Wihlborg (2006)

are not required to achieve credibility as a member of the EMU, but they are required to avoid costs of participation in a currency area.

## **5. Concluding remarks**

The empirical evidence on Europe's experiment with the EMU has led to the conclusion that the experiment has been rather successful so far and that it can perhaps show Asian countries the way towards their own version of a monetary union.

The road to such an experiment has been very long and costly indeed. Meanwhile the ideas offered to Asian countries have not been in short supplies. No one can argue that a monetary union is indeed possible if everyone adopts the yen or the Yuan as the currency for Asia with appropriate institutional arrangements. Alternatively, one could have a single currency like the Yuan whose convertibility in Asia is assured and have all other Asian currencies pegged to it. Kwan (1994) argued for a Yen-based currency system for East Asia.

Eichengreen and Bayoumi (1996) developed an index for the optimum currency area (OCA) for Asia and found that the countries are not ready for such. Wyplosz (2002) enumerated the following sufficient reasons for an area to develop a union: strong economic integration through trade, falling barriers to capital and labor flows. Both are achievable as world trade now overshadows the largest of GDP's and as the WTO works ever harder to bring down barriers. Yet, the state of the development of Asia's economic and political systems remains a cause for concerns. There are few Asian institutions that could possibly be relied upon to further the idea of a union: APEC, ASEAN, CER, etc., but these institutions are neither fully inclusive nor well structured. The Chiang Mai arrangement that allows for mutual swap arrangements to defend Asian currencies is a hopeful sign. It is close to a restrictive version of an EMS that preceded the EMU.

Monetary unions like those of Europe and (arguably) the US involve much harder steps to take for Asia when compared to Currency Boards, dollarization and a peg. A currency union carries with it substantial risks for several Asian economies; in particular in terms of adjustment to asymmetric shocks. These risks must be weighed against potential benefits in the financial markets in particular. There is hope for a substantial improvement of institutional conditions in Asian financial markets with a potential for

much greater benefits than those associated with a currency union. Attention to such institutional development is likely to have a much higher pay-off without touching on political sensitivities than efforts to form a currency union.

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**Table 1. Political benefits and the costs of joining the EU from a Central-Eastern European perspective.**

	<b>Benefits</b>	<b>Costs</b>	<b>Alternative arrangement</b> <i>Benefits and Costs</i>
<b>Security</b>	Greater security relative to the Russian Bear		<i>Reliance on NATO alone</i>
<b>Sovereignty</b>	Greater influence on EU decisions of great relevance whether member or not	Loss of sovereignty in some respects (Less influence in decision making bodies affecting domestic rules)	
<b>Institutional harmonization</b>	If EU institutions have greater legitimacy than national institutions	If EU institutions have lower legitimacy than national institutions	



**Table 2. Monetary Policy Harmonization; Macroeconomic effects of the EMU**

	<b>Benefits</b>	<b>Costs</b>	<b>Alternative:</b> <i>Strong Currency Board or constitutionally independent Central Bank with inflation target and float</i>
<b>Inflation</b>	A tool to obtain CB-independence a. Reduced inflation b. Importing credibility (depending on domestic alternative)	Less responsiveness to domestic policy preferences a. Short term policy b. Long term inflation trend	Benefit and cost can be obtained if institutions obtain strong credibility
<b>Output stability</b>	Output stability depending on nature of shocks (real or nominal rigidity?)	Instability depending on nature of shocks (real or nominal rigidity?)	Credible Currency Board like Monetary union. Float reverses benefits and costs
<b>Adjustment and policy instruments</b>	Greater domestic flexibility induced by inability to change exchange rate. (Endogenous flexibility)	Loss of instrument for BoP adjustment (real or nominal rigidity without endogenous flexibility)	Credible Currency Board like Monetary union. Float reverses benefits and costs
<b>Insurance</b>	Handing authority to ECB, If institutional support for a politically independent central bank is lacking,	Implicit insurance of national debt strengthens incentives to run fiscal deficits	

**Table 3: Payment System Harmonization; Microeconomic consideration**

	<b>Benefits</b>	<b>Costs</b>	<b>Alternative: Same as in Table 2</b>
<b>Costs of currency exchange</b>	Trade creation: Reduced transaction costs in cross-border payments within EMU. Risk-sharing in financial markets		Negates potential benefit
<b>Currency risk</b>	Trade creation: Reduced exchange rate risk Risk.sharing	Trade reduction: Potential increase in macro-exposure: a. exchange rate regime related b. reduced diversification	Currency Board like monetary union. Float reverses benefits and costs
<b>Transparency</b>	Trade creation: Information contents of prices Risk-sharing		Currency Board like monetary union. Float negates benefit

