

**ARE LATIN AMERICA AND EAST ASIA
OPTIMAL CURRENCY AREAS?**

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Introduction

The forces of globalization put an increasing pressure on countries to open up their their capital markets. Inevitably when countries pursue a policy of opening up their markets for goods and services sooner or later the need to open up their domestic capital markets manifests itself.

It is now generally recognized that capital mobility leads to a need to adjust domestic macroeconomic management. In particular countries that allow capital to move in and out freely, quickly find themselves forced to make difficult choices. Either they keep their exchange rates fixed but then they loose control over domestic monetary conditions; or they keep their monetary autonomy, but then they are forced to allow the exchange rate to float more or less freely.

These are difficult choices. Countries fear both floating and fixing of the exchange rate (Calvo and Reinhart(2002)). As a result, many countries resist the move towards capital mobility. Sooner or later, however, globalization will make it more difficult to use the option of capital controls.

The difficulties in solving this conundrum have revived the interest in monetary unions as a regime that finds a balance between fixity and flexibility of the exchange rates. When a group of countries decide to form a monetary union they take over a common currency and thus abolish exchange rates among themselves. In this sense they move towards one extreme in the choice of exchange rate regimes, i.e. complete fixity. At the same time, however, the enlargement of the monetary area allows these countries to keep a floating exchange rate against the rest of the world without having to fear the negative impacts of this flexibility. In addition, the transfer of monetary sovereignty to a union central bank allows maintaining monetary autonomy at the level of the union. Thus, a monetary union creates a number of advantages in a globalized world.

There is of course no such thing as a free lunch. Monetary unions also carry a price tag. The latter has been analyzed in the context of the theory of optimal currency areas (OCA), which is really a theory about the costs and benefits of

a monetary union. In this paper we use this theory to analyze the issue of whether Latin America and East-Asia are ready to form a monetary union.

The OCA theory has emphasized three different factors that determine whether or not the benefits of a monetary union will exceed its costs. These are

- The degree of economic integration between the prospective members of the union
- The degree to which these countries' economies are subject to asymmetric shocks
- The degree of flexibility in the labour markets.

In a nutshell the theory says that countries which want to profit from a monetary union need a sufficient degree of economic integration. Without such integration the common currency does not provide for many efficiency gains (lower transaction costs, less uncertainty). In addition, if these countries are subject to many asymmetric shocks the costs of relinquishing their monetary policy instruments to the union central bank will be high. Finally, a low degree of labour market flexibility increases the cost of adjusting to the asymmetric shocks, and thus increases the cost of a monetary union.

We now apply these insights to the issue of whether Latin America and East-Asia are optimal currency areas.

Is Latin America an optimal currency area?

The literature on this question is still in its infancy in Latin America. Nevertheless a broad picture emerges. We first look at the degree of openness (integration), in Fig. 1. We measure integration by the exports of each country to the rest of the region (respectively Latin America and the Eurozone). Figure 1 compares the degree of integration of Latin American countries among themselves with the integration of the Eurozone countries. As the latter form a monetary union (at least among twelve of them), it is useful to use this group of countries as a benchmark for Latin-America.

The differences between Latin America and the Eurozone are striking. While the latter have achieved a relatively intense degree of trade integration, Latin American

countries have very low levels of trade integration with each other. This feature has been documented by many researchers (see e.g. Larrain and Tavares (2005)). This lack of economic integration in Latin America is commonly thought to be due to two factors. First, these countries are relatively closed towards the rest of the world in general. Secondly, the largest part of their trade is with regions outside Latin America (mostly the USA and Europe). Thus, our first criterion for forming an optimal currency area in Latin America is quite unfavourable.

The other criteria are more difficult to evaluate because relatively little systematic research has been undertaken. On the degree of asymmetry of shocks there is evidence provided by Calderon *et al.* (2002), and Larrain and Tavares(2005) indicating that the degree of synchronization of output movements is low in Latin America, and that asymmetric shocks are relatively large.

Very little empirical evidence has been undertaken to measure the degree of flexibility of labour markets in Latin America, but it appears that the existence of segmented labour markets reduces the scope for adjustment to asymmetric shocks (see Hochreiter *et al.* (2002). On the whole, Latin America appears to be far from being an optimal currency area.

The previous analysis is based on the traditional OCA-theory as pioneered by Mundell(1961). It has, however, also been recognized that a monetary union provides additional benefits in that it makes it possible for high-inflation countries to import price stability. In order for this effect to work, however, the monetary union must provide for the right institutions guaranteeing price stability. This was the case in Europe, in that a significant number of countries joining EMU had experience with monetary stability. As a result, the monetary union that was created in Europe could profit from this experience with monetary stability, and could set up strong institutions guaranteeing price stability. Those countries like Italy, which had less experience with monetary stability, could benefit from joining a club whose members had much practical experience. This feature is certainly not present in Latin America today (2005). Almost all Latin American countries have gone through varying degrees of monetary instability and inflation in the recent past. Almost all the governments and central banks of these countries suffer from a bad record on inflation. It is, therefore, unlikely that the institutions that would have to be created in a Latin American monetary union would be strong enough to guarantee price stability.

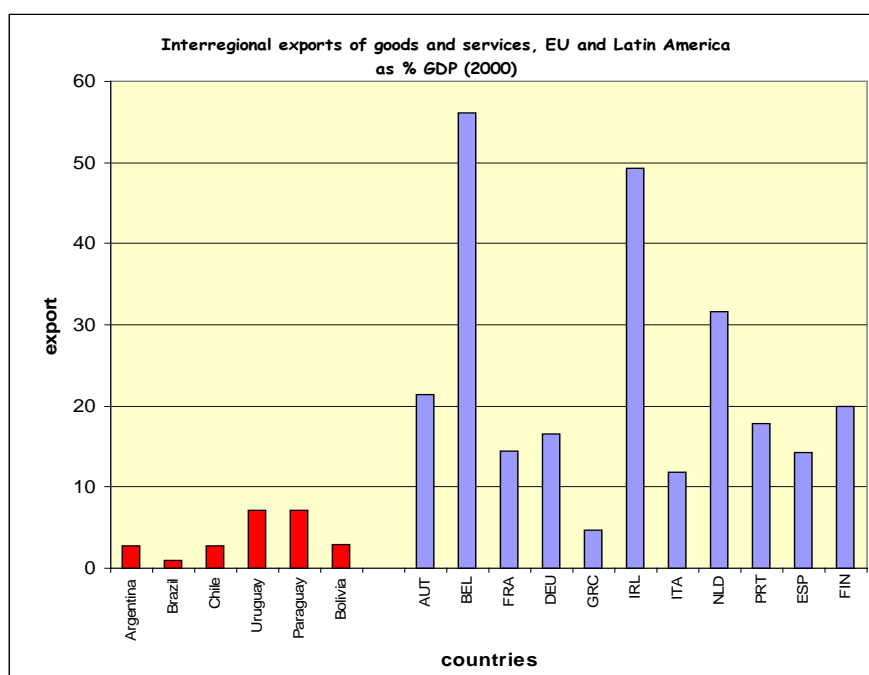
This lack of credibility of the institutions in a Latin American monetary union is an additional reason why such a union is unlikely to be created soon. There is a general

perception in Latin America that such a union would not solve the endemic problem of monetary instability of the continent.

This conclusion has led to the view that Latin American countries would benefit from dollarization (see e.g. Frankel in IMF(1998))¹. In such a regime Latin American countries take over the dollar as their means of payment. In doing so they also import the monetary stability provided by the US Federal Reserve.

Dollarization, however, also implies that all monetary sovereignty is transferred to the USA. This creates strong political resistances. For this reason it is unlikely that the larger Latin American countries will want to dollarize their economies, even if such a regime promises them a great deal of monetary stability. Dollarization can be attractive to smaller Latin American countries. Some of these (Ecuador, Panama, El Salvador) have already shown their preferences to go for a monetary union with the USA in the form of dollarization.

Figure 1



Source: IMF, Direction of Trade and IFS
European Commission, European Economy

¹ For a dissenting view, see Duncan(2005).

The next monetary union in Asia?

The Asian financial crisis of 1997-98 generated considerable turbulence. Many East-Asian countries found out that in a world of free capital mobility they were unable to fix their exchange rates. Speculative attacks in the exchange markets forced them to devalue or to let their exchange rate float. This led to large macroeconomic disturbances and to distortions in trade flows. Initiatives were taken to prevent this from happening in the future².

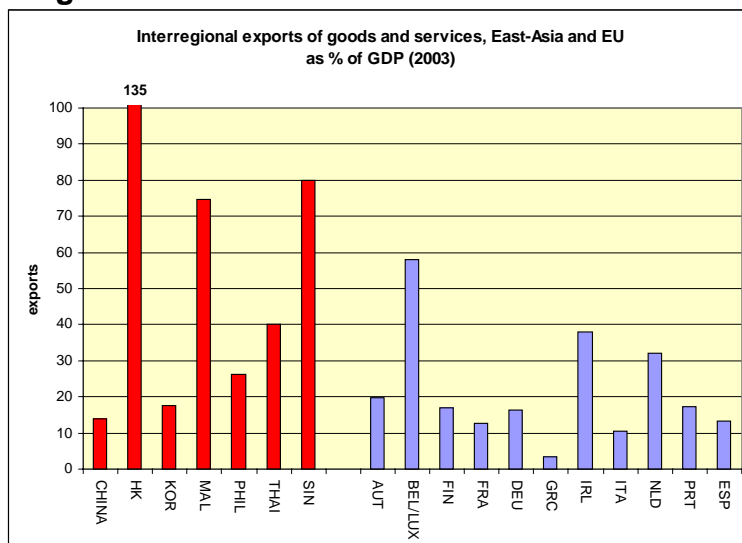
There is a widespread view however that these new financial arrangements will not suffice to shield the Asian currencies from future speculative attacks. As a result, the idea of permanently locking the exchange rates of these currencies by moving into a monetary union has gained credence. This leads to the same question analysed in the previous section, i.e. is East-Asia an optimal currency area.

We start by analyzing the evidence about the degree of trade integration and compare it with trade integration in the Eurozone. In figure 2 we present the exports of East-Asian countries to the rest of East-Asia as a % of their GDP and compare these with the exports of Eurozone countries with the rest of the union (also as a % of GDP). Asian countries have strong degrees of integration with the rest of Asia, very much like EU-countries have with the rest of the EU³. Thus an important OCA-criterion seems to be satisfied in East-Asia, at least if one can assume that the Eurozone is a good benchmark. These countries are highly integrated and should therefore profit a lot from the efficiency gains provided by having one currency.

² The most important one is the "Chiang Mai Initiative" (CMI). The Finance Ministers of ASEAN, China, Japan and South Korea announced the initiative in May 2000. It expanded a network of bilateral short term credit arrangements among ASEAN countries, China, Japan and the Republic of Korea. The CMI also initiated an economic review and policy dialogue process, which aims at eliminating macroeconomic and financial disequilibria that may lead to crises (see Xu Ning(2004)).

³ Note also that some countries in Asia have extremely high integration ratios, in particular Hong Kong which has a ratio exceeding 100%. This is due to the fact that exports are production data (which include imports) while GDP are value added data (excluding imports). Hong Kong's export is to a large extent transit trade with little value added. As a result, it exceeds 100%.

Figure 2



Source: IMF, IFS and Xu Ning(2004)

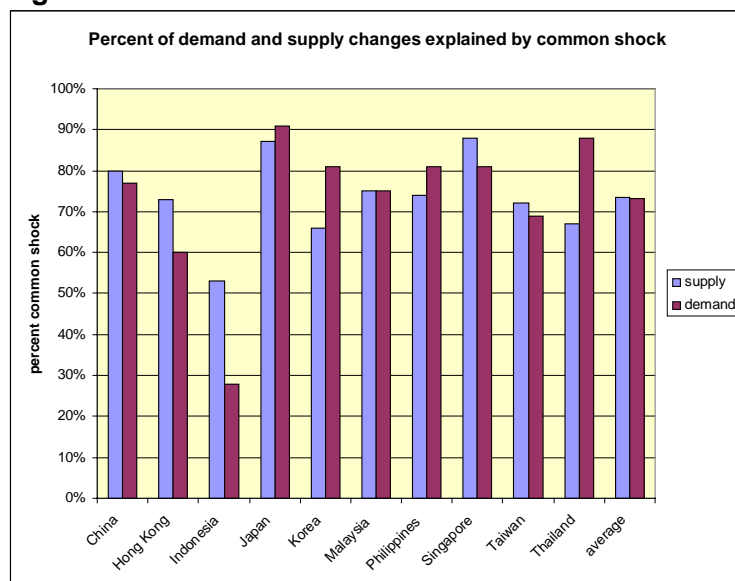
Note: the exports of the East-Asian countries is to ASEAN plus China, Korea and Japan. The data for China relate to 2001.

The second OCA-criterion we want to analyze is the degree of asymmetry of shocks. This has been analysed in great detail during the last few years. The consensus today is that Asian countries do not experience more asymmetry in their shocks than the present Eurozone countries (see Bayoumi and Eichengreen(1999), Yin-Wong Cheung & Jude Yuen(2003), Xinpeng Xu(2004) Kiyotaka Sato and Zhaoyong Zhang(2005)). The latter show that both the long term trend and the cyclical components of output are integrated. The study of Xinpeng Xu(2004) computes the percentage of the variation in demand and supply shocks that can be attributed to common shocks⁴. Thus this percentage can be interpreted as expressing the degree of symmetry in the shocks. We show the results in figures 3 and 4. Figure 3 shows these percentages for the Asian countries, while figure 4 shows these percentages for the Eurozone countries. It is very striking to observe that the degree of symmetry in the demand and supply shocks of Asian respectively Eurozone countries is very similar⁵. The degree of symmetry of shocks of the Asian countries appears to be only marginally lower than in the Eurozone countries (see the averages in the figures).

⁴ These percentages are computed by first extracting the demand and supply shocks using the Blanchard-Quah procedure. Then these demand and supply shocks are subjected to a factor analysis which allows to extract a common component in the movements of these shocks.

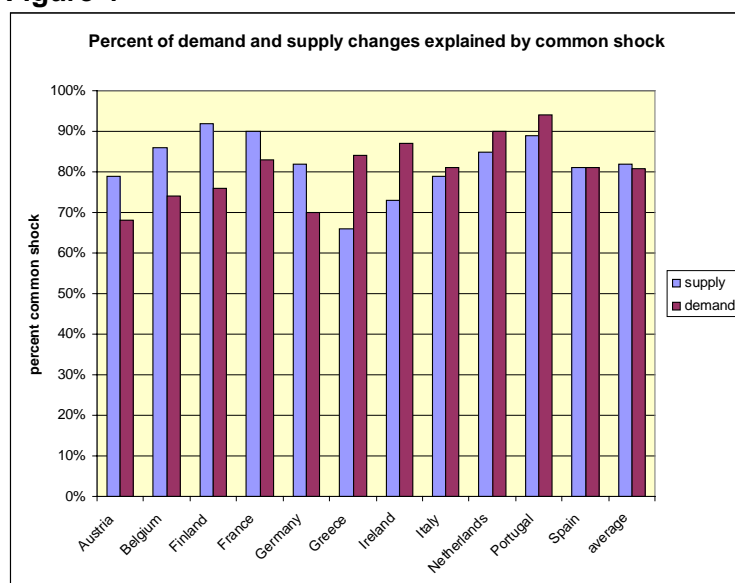
⁵ The outlier is Indonesia whose demand and supply shocks so not seem to be well synchronized with the rest of Asia

Figure 3



Source: Xinpeng Xu(2004)

Figure 4



Source: Xinpeng Xu(2004)

We conclude that according to two of the OCA-criteria, East Asia seems to be close to an optimal currency area (assuming that the Eurozone is a good benchmark). In addition, since it appears that the flexibility of the labour markets in these countries is at least as high, if not more so, than in Europe (see Zhang, Sato and McAleer(2004)), it appears that East-Asia comes close to forming an optimal currency area.

So, why has monetary union not come about yet in Asia? The answer seems to be political. There is a widespread feeling in East Asia that the political obstacles to

forming a monetary union are too large. These obstacles are themselves the result of historical developments that make it difficult for these countries to unite. In addition, there are large cultural differences that act as equally important impediments for a successful integration. The contrast with the Eurozone is important. Monetary unification became possible in Europe also because of a strong political desire to unite the continent. This desire originated from the Second World War and led to the build-up of European institutions like the European Commission, the European Court of Justice and the European Parliament that all embody some transfer of national sovereignty. In such an environment it became relatively easy to create a new supranational institution, the European Central Bank. This institutional infrastructure is still absent in Asia, making it difficult to envisage monetary union in the short and medium run.

Conclusion

The experiment with monetary union in Europe has been highly successful. Are the conditions satisfied to repeat such an experiment in other parts of the world? The answer to this question is important because as a result of globalization, an increasing number of countries find themselves in the uncomfortable situation of having to choose between more flexibility and a loss of monetary sovereignty. Monetary union appears to make this choice easier, at least for those countries which form an optimal currency area.

We argued in this paper that the European success with monetary unification is unlikely to be repeated soon in Latin America and East-Asia, the two regions where economists have started to discuss the pros and cons of monetary unification. The reasons, however, differ widely in these two regions.

In Latin America, the basic economic conditions for a successful monetary union do not seem to be satisfied. Latin-American countries have a poor degree of economic integration generating few expected gains of having one currency. In addition, the Latin American economies continue to face large asymmetric shocks creating a potential for large adjustment shocks if they were to tie their hands into a monetary union. Finally, credible domestic institutions on which union-wide institutions (a central bank) could be built, are lacking.

In East-Asia the economic conditions for forming a successful monetary union seem to be satisfied. East-Asian countries are highly integrated and experience similar symmetric shocks. The main obstacle for monetary unification is to be found in

politics. The weight of the past continues to hinder steps towards creating supranational institutions to which these countries would transfer part of their sovereignty. Thus, while in Latin-America the obstacles to monetary union are mainly economic ones, they are exclusively political in East-Asia.

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