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EXCHANGE-RATE
ARRANGEMENTS AND
FINANCIAL INTEGRATION IN
EAST ASIA:
ON A COLLISION COURSE?

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with comments by
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Editorial

On February 24-25, 2006 an international workshop on “Regional and International Currency Arrangements” was held in Vienna. It was co-sponsored by the Oesterreichische Nationalbank and the Bank of Greece, and jointly organized by Eduard Hochreiter and George Tavlas. Academic economists and researchers from central banks and international organizations presented and discussed current research, and reviewed and assessed the past experience with, and the future challenges of, international currency arrangements. A number of papers and the contributions by the discussants presented at this workshop are being made available to a broader audience in the Working Paper series of the Bank of Greece and simultaneously also in the Working Paper Series of the Oesterreichische Nationalbank. The papers and the discussants’ comments will be published in the journal, *International Economics and Economic Policy*. Here we present the third of these papers. (The previous two were issued as Bank of Greece Working Papers No. 39 and 40.) In addition to the paper by Hans Genberg, the Working Paper also contains the contributions of the discussants, Jim Dorn and Eiji Ogawa.

May 5, 2006

Exchange-Rate Arrangements and Financial Integration in East Asia: On a Collision Course?

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Abstract

Financial integration in East Asia is actively being pursued and will in due course lead to substantial mobility of capital between economies in the region. Plans for monetary cooperation as a prelude to monetary integration and ultimately monetary unification are also proposed. These plans often suggest that central banks should adopt some form of common exchange rate policy in the transition period towards full monetary union. This paper argues that this is a dangerous path in the context of highly integrated financial markets. An alternative approach is proposed where independent central banks coordinate their monetary policies through the adoption of common objectives and by building an appropriate institutional framework. When this coordination process has progressed to the point where interest rate developments are similar across the region, and if in the meantime the required institutional infrastructure has been built, the next step towards monetary unification can be taken among those central banks that so desire. The claim is that this transition path is likely to be robust and will limit the risk of currency crises.

Paper prepared for the International Workshop on “Regional and International Currency Arrangements” co-organized by the Bank of Greece and the Oesterreichische Nationalbank, February 24-25, Vienna. The conclusions of the paper are strictly those of the author and should not be taken to represent those of the Hong Kong Monetary Authority.

Introduction.

Although economic growth has resumed in East Asia since the crisis and contraction in the late 1990s, the experience of that period is still vividly in the minds of policy makers, and indeed the general public. An important question is therefore whether anything can and should be done to increase the resiliency of the region as a whole to shocks, and especially to shocks originating in international financial markets.

Policy makers in East Asia see economic integration in the region as one way to consolidate growth and to prevent a recurrence of instability due to the perceived stop-go nature of international capital flows. Substantial integration of trade in goods has in fact already occurred as documented in a number of studies.¹ The emergence of Mainland China as a manufacturing hub is significant in this regard, as it imports large quantities of intermediate goods from other economies in the region, transforms them into final goods for exports to the rest of the world.

The increased trade integration among economies in the region has led to calls for coordination of exchange rate policies lest competitive depreciations lead to artificial distortions in competitiveness, disruptions of trade, and dislocation of production. Not infrequently, the experience of Europe is used to argue that such exchange rate cooperation is necessary now that the degree of integration has reached levels close to that in Europe when the ERM was introduced.

The degree of integration of financial markets is distinctly smaller. This is partly due to the controls on capital movements that some jurisdictions have maintained for a long time, but it is partly the result of the perception that the crisis of the late nineties was to some extent due to the vagaries of international capital flows. But at the same time it is of course recognised that international capital flows can bring substantial benefits. A response to this ambiguous attitude towards international capital flows has been to encourage financial integration within the region, although this should not be seen as an alternative to participating in the global financial system, but rather as a way to increase the size of local financial markets and thereby rendering them more resilient to swings in global capital flows.

This paper takes these two developments, towards greater financial integration on the one hand and proposals for exchange rate coordination on the other, as given and asks what they imply for monetary policy regimes in the region. Section II briefly reviews some initiatives that are being pursued towards greater financial integration and argues that these initiatives will only achieve their full goal if substantial liberalization of capital flows between countries is undertaken.

After a review of existing exchange rate practices and a characterisation of exchange rate behaviour in the region, section III considers the proposals for exchange rate coordination that have focused on some form of common exchange rate peg. The section emphasizes the difference between pegs that link the currencies to an external anchor and those that are based on an internal unit of account, and sets out the implications of each for the conduct of monetary policy in the countries that join

¹ See, for example, Cutler et. al. (2004) and Zebregs (2004).

such an exchange rate arrangement.

Section IV addresses the question in the title of the paper and argues that the creation of fully integrated financial markets in the region and moving towards monetary unification may lead to undesirable outcomes unless the two processes are sequenced and designed carefully. It is argued that the path towards European monetary union provide useful lessons in this respect. These lessons should not, however, be that Asia should follow the European model of exchange rate stabilization in the context of liberalized international capital flows. The crises in the ERM during the 1990ies were not independent of the choice of this transition path towards the EMU. Instead Asian countries should follow a path where independent central banks coordinate their monetary policies, explicitly through some institutional framework or implicitly through the adoption of common objectives. When this coordination process has progressed to the point where interest rate developments are largely the same across the region, and if in the meantime the required institutional infrastructure has been build, the next step towards monetary unification can be taken among those central banks that so desire. I claim that this transition path is likely to be robust and will limit the risk of currency crises.

The final section of the paper recalls that significant coordination of exchange rate policy requires equally significant coordination of interest rate policies in an environment where capital mobility is substantial. It then discusses the likelihood that individual jurisdictions in East Asia will be able and willing to give up decision-making power over monetary policy to a supranational coordinating institution, and concludes by sketching what the implications for the currency landscape in the region may look like in the medium term horizon.

II. Integration of financial markets.

The degree of international integration of domestic financial markets varies considerably across the countries that are the focus of this paper. Hong Kong, at one extreme, is completely open to international capital flows. Japan and Singapore are not far behind. At the other end of the spectrum there is Mainland China which has very strict controls de jure. There is some question as to the degree of de facto integration that is present, but it is quite clear from interest differentials that domestic and international financial markets are separated to an important degree. Malaysia imposed controls on capital flows in the aftermath of the Asian financial crisis, and while some of these have been eased, substantial impediments remain to create room for an independent domestic monetary policy.

For the other countries in the region, the de jure degree of capital mobility as measured by looking at the IMF's Annual report on Exchange Arrangements and Exchange Restrictions appears to quite limited, but the de facto mobility is almost certainly considerably larger. The reason for the diversity among the countries can be explained in part by their experiences during the Asian financial crisis and the lessons they drew from these (cf. Malaysia and Thailand), in part by the legacy of a generally closed economy (Mainland China), and in part by a desire to shield domestic financial institutions from external competition.

The Asian financial crisis was a traumatic event in the region and it has spawned a number of initiatives for cooperation among central banks to enhance their ability to cope with volatile capital flows. The best known is perhaps the so-called Chiang Mai initiative. In its current form it consists of a set of bilateral swap agreements between central banks that increases the effective size of international reserves at the disposal of an individual central bank. While these swap agreements do not have any direct impact on private sector capital mobility, the intention behind them is presumably to make central banks better prepared for such flows.

Another major official financial market project in the region is the development of an integrated Asian bond market.² One motivation behind this initiative is to facilitate the intermediation of funds inside the region. It is well documented (e.g. in McCauley (2003)) that much of the large volume of Asian savings is invested in developed-country assets with relatively low rates of return only to come back in the form of FDI and portfolio investments in high-return local assets. It is felt that a more developed regional bond market might allow local investors and savers to benefit more from this intermediation spread.

The Asian bond market initiative is also meant to encourage a broader and more efficient corporate bond market with the ultimate objective to lower the cost of funds for the corporate sector thereby increasing the rate of investment and growth. For this to materialize on a region-wide basis it will be necessary for countries that currently have restrictions on capital flows to remove them to a significant degree. The logic of the bond market initiative therefore implies substantially open capital markets in the region, which in view of the liberal regime in some countries, of course implies openness with respect to the world as a whole. The remainder of the paper thus takes it as given that the countries in the region will move in due course towards a regime of substantially open capital accounts.

III. Exchange rate arrangements.

1. The current situation.

The current exchange rate arrangements in East Asia span the entire spectrum from a very hard peg in the case of Hong Kong's currency board arrangement to the floating exchange rate of the Yen. Other jurisdictions in the region operate systems that fall in between with Mainland China and Malaysia being close to the fixed-rate end of the spectrum, South Korea closer to the opposite end and Indonesia, Philippines, Taiwan-China, and Thailand in between.

Hong Kong

Hong Kong operates a currency board system with a commitment to keep the HKD between 7.75 and 7.85 HKD/USD.³ All movements in the monetary base

² See Ma and Remolona (2005) for a succinct description.

³ Before 18 May 2005 the exchange rate system was asymmetric in the sense that there was a firm commitment not to let the Hong Kong dollar depreciate past 7.80 but there was no explicit commitment on the strong side. The so-called three refinements to the currency board system introduced on May 18 established the current symmetric convertibility zone.

reflect corresponding movements in the stock of international reserves. Local currency interest rates are therefore closely linked with their US dollar counterparts with very little no discretion on the part of the Hong Kong Monetary Authority to influence them independently.

Mainland China

On July 21 2006 the Mainland Chinese authorities announced that they would shift from a fixed exchange rate (to the US dollar) to a managed floating system with reference to a basket of currencies. At the same time they announced a one-step initial appreciation of the RMB of 2.1% relative to the USD. The composition of the basket is not made known, but it is said to consist of at least seventeen currencies. While the bilateral RMB/USD exchange rate is much less volatile than most plausible basket rates, it is possible to detect both a weak trend-like appreciation of the renminbi and a tendency to move with a basket.

Malaysia

After having pegged the Ringgit tightly to the US dollar since September 1998, the Malaysian authorities announced a move to a basket peg at the same time as Mainland China changed its system. The basket is not disclosed and the bilateral USD rate is still far less volatile than the effective exchange rate. As in China, controls on capital movements permit local interest rates to deviate from the US counterparts more than can reasonable be attributed to expected exchange rate changes.⁴

Singapore

The Monetary Authority of Singapore is unique among the central banks in the region in that it uses the effective exchange rate actively as an intermediate target to reach an inflation target. In other words, it can be classified as following an inflation targeting regime although it does not describe itself that way. The basket used as the intermediate target is not disclosed.

Indonesia, Philippines, South Korea, Taiwan/China, Thailand

The central banks in these jurisdictions are self-proclaimed inflation targeters using a short-term interest rate as the intermediate target. Of course, inflation targeting does not have to mean that no attention is paid to the exchange rate when interest rate decisions are made, so it is quite possible that the exchange rates of these economies follow systematic patterns in relation to main trading partners. Regression results discussed below illustrate this point.

Japan

As already noted, among the Asian currencies covered in this paper, the Japanese Yen probably comes closest to the traditional definition of a freely floating one. Even so, the results reported in the Appendix show that the movements of the Yen-US dollar exchange rate are systematically related to the USD/EUR rate.

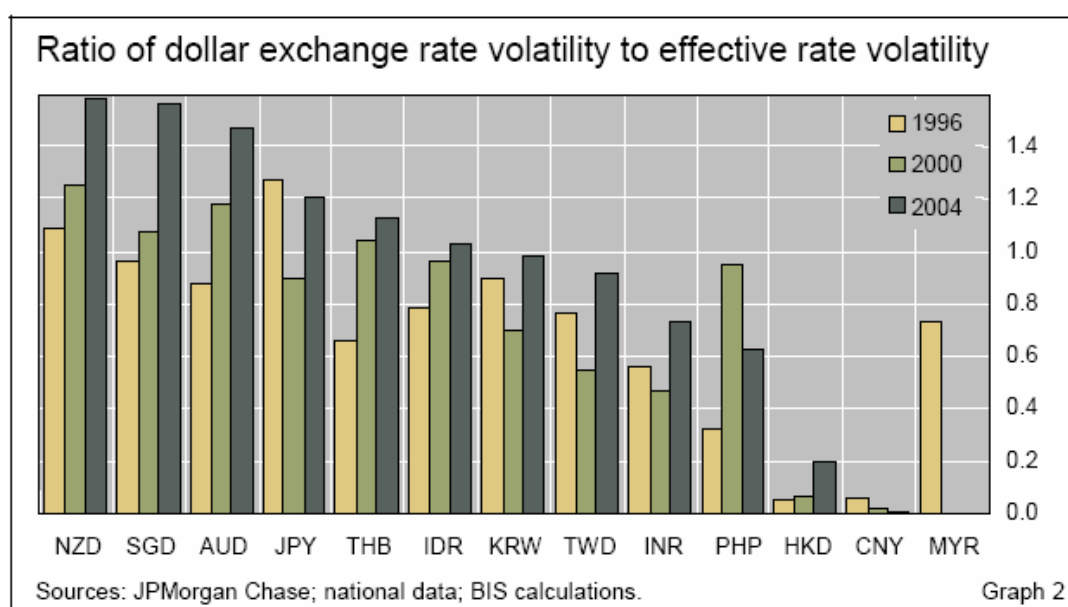
⁴ McCauley (2006).

2. Characterizing fluctuations in Asian currencies.

2.1 Movements against the UD dollar.

Ho, Ma, and McCauley (2005) argue that movements in Asian currencies are increasingly related to those of a wider group of trading partners than just the US dollar. They illustrate this point in two ways, by calculating the ratio of US dollar exchange rate volatility to effective exchange rate volatility on the one hand, and by regressing movements of individual dollar exchange rates on dollar exchange rates of major local trading partners/competitors on the other.

If Asia was on a dollar standard (McKinnon and Schnabel (2003)) the ratio of US dollar volatility to effective rate volatility would be very small. Conversely for a country that stabilizes the effective exchange rate, the ratio would be very large. Graph 2 in Ho, Ma, and McCauley(2005) (reproduced below) shows that - with the notable exception of Hong Kong, Mainland China, and Malaysia - the volatility ratio is far from zero and has typically been increasing over time.



Regressions of the form

$$\Delta S_{i,t} = \alpha_0 + \sum_j \alpha_j \Delta S_{j,t} + u_{i,t} \quad j \neq i \quad (1)$$

where S_k represents the US dollar exchange rate of currency k , can be used to assess whether a particular currency is more or less rigidly pegged to another. If a coefficient α_j is equal to unity and if $u_{i,t}$ is 'small' for all t then currency i is pegged to currency j . If all α 's are zero and the u_i 's are small, then the currency is pegged to the US dollar. When some α 's are non-zero, then currency i is systematically related to the currencies corresponding to the non-zero coefficients. Such relationship could come about either because the central bank is actively managing the currency or simply

because the behaviour of currency traders/investors in the market generates a correlation between particular currencies.⁵

In the Appendix I tabulate the results of regressions of the form (1) using weekly data for the main East Asian currencies for the period since January 1, 2000 and for various sub-periods. The following points can be made on the basis of these results.

- Looking at the results for the full sample period, it is evident that the evolution of the Singapore dollar, the New Taiwanese dollar, and the Thai bhat depend quite strongly on movements in the Euro, the Japanese Yen, and the South Korean Won. For these currencies the effective exchange rate orientation (as opposed to a pure dollar orientation) emphasised by Ho, Ma, and McCauley using daily data is clearly present also in weekly data. Movements in the Indonesian rupee and the Philippines peso on the other hand are quite idiosyncratic.⁶ The won reacts systematically to the yen, and changes in the yen correlate positively with those of the euro.
- Comparison of the regression coefficients across different sample periods reveals a certain degree of instability over time. Two possible explanations could account for that. If regression coefficients are capturing deliberate exchange rate management, then instability would indicate changes over time in the composition of the basket that forms the basis of the managed exchange rate policy. On the other hand if significant regression coefficients reflect common underlying shocks, then instability would simply mean that different shocks have been present in different time periods.
- Finally it is noteworthy that there are considerable differences across countries in the way their currencies relate to movements in the euro, yen, and the won. Different trade patterns or differences in economic structure which translates into differences in the reaction to common shocks are potential explanations.

2.2 Measures of intra-region exchange rate variability

Intra-regional exchange rate volatility will appear when individual currencies in the region react differently to movements in the dollar, the euro, and the yen. As there is no single perfect measure of the overall degree of intra-regional exchange rate variability, Table 2.1 presents summary statistics based on a very simple construct, the equally-weighted geometric average of all currencies in the region.^{7,8}

The figures in the table confirm that there are significant differences in the

⁵ An example might be the relationship between the Swiss Frank and the Euro. In a regression of movements of the former on the latter is likely to show a dependence of the CHF/USD rate on the EUR/USD rate even though the Swiss National Bank does not engage in systematic exchange rate management.

⁶ Pegging to the US dollar can be ruled out by inspection.

⁷ 'All' currencies should be understood to mean all currencies considered in this paper.

⁸ The measures are calculated as follows. First all US dollar exchange rates are converted into indices with an average value of 100 for the sample period as a whole. The geometric average of these indices is then calculated using equal weights. Finally percentage deviations of each individual series from the geometric average are calculated. The summary statistics in Table 2.1 are based on these deviations.

behaviour of individual currencies in the region. Not surprisingly, the countries (Singapore, Taiwan (China) and Thailand) whose currencies were shown to have the most systematic effective exchange rate orientation in the regression results also have the smallest deviation from the regional average.

Table 2.1: Deviations from 10-country regional geometric average¹
(Percent)

	Average absolute value	Standard deviation	Maximum	Minimum
Singapore	1.7	2.3	7.0	-3.3
Taiwan, China	2.0	2.4	4.5	-6.4
Thailand	2.1	2.6	6.6	-4.6
Hong Kong SAR	2.4	3.2	8.7	-5.9
Malaysia	2.4	3.2	8.9	-6.0
China, Mainland	2.5	3.3	9.1	-5.9
Japan	3.7	4.4	11.3	-8.1
South Korea	4.6	5.9	10.0	-13.2
Indonesia	6.1	7.3	22.0	-15.9
Philippines	6.7	7.7	11.5	-16.1
For reference:				
Sweden	2.5	3.5	9.4	-10.4
Switzerland	2.1	2.6	5.8	-5.3

¹For the exact method of calculation, see footnote xx in the text.

Whether the size of the deviations shown in the table should be considered large or not is difficult to determine in the absolute. A standard of comparison is given in the last two rows of the table, where figures are given for the percentage deviations of the euro exchange rates of the Swedish krona and the Swiss franc from their respective sample averages. These countries are chosen as they are both small highly open economies that trade intensively with the euro area. It is therefore interesting to note that the size of the fluctuations of their currencies relative to the euro lies somewhere in the middle of the ranking of East Asian currencies even though they profess to have freely floating exchange rates.

The stylized facts presented in this section describe the environment within which discussions about the desirability of some form of coordinated exchange rate policy in the region take place. In view of the strong degree of trade integration between the countries in the region, there have been proposals for some form of coordinated exchange rate arrangement. The objective seems to be to limit fluctuations in bilateral real exchange in response to external shocks or reduce temptations to resort to competitive devaluations.

3. Proposals for coordinated exchange-rate policies and their implications for monetary policy

3.1. *Alternative currency pegs in Asia.*

The leading proposal for a coordinated exchange rate arrangement in the region appears to be the so-called BBC (Basket-Band-Crawl) proposal.⁹ As the name suggests, this proposal entails defining a currency basket to which each individual currency would be pegged, allowing for a band around the central rate and allowing the central rate to change slowly. The basket would be the same (or at least very similar) across countries in order for the implied bilateral exchange rates to be stable.

The ‘band’ and ‘crawl’ aspects of the BBC proposal have important implications for the credibility of the system which will be discussed in the next section. Here I want to focus on the implications for monetary policy of the composition of the basket so I will for simplicity consider the pure case with no bands and zero rate of crawl.

The main issue appears to be the choice of an ‘external’ reference basket and an ‘internal’ reference basket. By a pure external basket is meant an arrangement in which each country in the region would peg its currency to a basket made up of currencies not belonging to the region, whereas a pure internal basket implies pegging to a basket made up entirely of currencies of the region itself. While both systems would lead to stability of bilateral exchange rates between the currencies within the region, they have widely different implications for the determinants of monetary conditions.

3.2. *What determines monetary policy in a pegged exchange rate system?*

To appreciate this, consider a stylized case where we only have four countries: two countries (α , β) within the region and two countries (A, B) outside. An outside basket would be a weighted average of the currencies of A and B. In order to avoid fluctuations in the bilateral exchange between α and β due to changes in the bilateral exchange rate between A and B, the weights in the baskets to which α and β are pegging must be the same, w_A and $1-w_A$.

Suppose now that both α and β peg their respective currencies to this common basket. With internationally integrated financial markets, their interest rates must then be the same and equal to

$$i_\alpha = i_\beta = w_A \cdot i_A + (1-w_A) \cdot i_B$$

In other words, the monetary conditions in each of the countries, as defined by the rate of interest, will be determined by the monetary conditions in the rest of the world.

Contrast this with the case of pegging to a common internal basket. In this case the common interest rate will be a weighted average of the interest rates of each of the countries in the region (assuming that all of them are included in the currency basket). In other words, pegging the exchange rates of each of the members will not itself

⁹ See Williamson (2005).

determine monetary policy conditions in the region. This is of course nothing else than the familiar n-1 problem in a fixed rate system. If n countries form an internally defined fixed exchange rate zone, there will be 1 degree of freedom which must be used to set the interest rate for the system as a whole. How exactly this can be done is discussed in section

In the case of East Asia it is frequently suggested that a mixed internal and external basket be used for the region. For example, suggests that a weighted average of the US dollar, the Euro and the Yen should be used. In this case, and if Japan is part of the exchange rate arrangement, the interest rate in Japan, which will be the interest rate also in the other countries in the zone, will be defined by

$$i_{\text{Japan}} = w_{\text{US}} \cdot i_{\text{US}} + w_{\text{EURO}} \cdot i_{\text{Euro}} + (1 - w_{\text{US}} - w_{\text{EURO}}) \cdot i_{\text{Japan}}$$

i.e.

$$i_{\text{Japan}} = \tilde{w}_{\text{US}} \cdot i_{\text{US}} + (1 - \tilde{w}_{\text{US}}) \cdot i_{\text{EURO}}$$

where

$$\tilde{w}_{\text{US}} = \frac{w_{\text{US}}}{w_{\text{US}} + w_{\text{EURO}}}$$

In other words, from the point of view of the evolution of interest rates in the exchange rate zone, and hence the control of monetary policy, the mixed basket is like the external basket in that external factors will completely determine monetary conditions in the zone.

IV. A Collision Course?

I have argued that the revealed preference of Asian policy makers is to create a financially integrated region. There are also proposals, mostly but not exclusively from academic and policy lobby circles, to introduce cooperation in the area of exchange rate policy that will take the form of a common basket peg in the region. In this section I examine a number of issues that arise from these aims.

It is well-known that free capital mobility and a fixed exchange rate are compatible only if monetary policy (and indeed macroeconomic policy in general) is subordinated to the fixed exchange rate objective. It is not only current policies that matter, but also expectations about how policy makers will react to shocks. In other words, the commitment of the authorities to maintaining the fixed rate must be very strong in order for speculative attacks not to materialize. The European exchange rate experiences in the early 1990s provide pertinent lessons; countries (Austria and the Netherlands are the most clear examples) that for many years had made it clear that they had no intention to carry out anything but a DEM based monetary/exchange rate policy were not affected, whereas countries with less strong commitments were.

The idea behind the title of this paper then is that policy initiatives and discussions

in Asia with respect to financial market integration and exchange rate policy may be on a collision course in the sense that, if implemented, conditions may be established that will bring about an eventual exchange rate crisis.

1. Unstable paths towards monetary integration.

Suppose that there is a desire to establish a truly fixed exchange rate zone, i.e. a monetary union, in the region in the long term.¹⁰ One way to do so would be to follow the European model and create a common basket peg among the participating countries and start to work on the establishment of the institutional infrastructure required to operate a monetary union. The common basket system would make allowances for bands around central parities and possibly for rates of crawl of the parities themselves.

If such a system was operating in the context of substantially free capital mobility, the risk of currency speculation and crisis would be present, particularly if the bands around the parities were narrow, and if there were reasons to believe that the commitment to the exchange rate objective was less than absolute. To reduce the risk of speculative attacks one may contemplate making the exchange rate bands rather wide, for example as wide as the $\pm 15\%$ bands introduced in August 1993 into the ERM in Europe after the turbulence in the system. While this might reduce the likelihood of exchange rate crises it does so at the cost of potentially large fluctuations in exchange rates, exactly what the common peg proposal is intended to eliminate. More fundamentally in my opinion is that a very wide band for the exchange rate all but eliminates it as a nominal anchor in the economy. It is therefore essential in such a system that each country specifies an alternative monetary policy strategy, and that these strategies be mutually consistent. In other words, the monetary policy coordination that is supposed to emerge from the common exchange rate peg must be specified separately.

Allowing for crawling central parities will not solve the problem. If the rate of crawl is predetermined and fixed, all that is gained is a differenced between the countries in the level of interest rates and the average rates of inflation. There will be no added policy autonomy to deal with short- and medium-term disturbances. The risk of a currency crisis is only altered in so far as allowing for differences in average inflation rates makes the arrangement more credible. In my view this is questionable, although others may think differently. If the rate of crawl is made discretionary, the role of the system as a nominal anchor is again reduced, and as discussed above, some alternative method of monetary policy coordination must be found.

To reduce the risk that a pegged exchange rate arrangement will break down some may suggest that countries should retain, or introduce as the case may be, some controls on international capital movements. Three considerations speak against such an approach. First, it seems to go against the revealed preferences of Asian policy makers who approvingly speak of the creation of an integrated Asian financial market.

¹⁰ I am leaving aside the question of the composition of such a zone for the moment, and indeed whether its creation is likely in the foreseeable future. These issues will be discussed in the next section.

Second, an presumably not unrelated, maintaining capital controls for extended periods of time would prevent Asian countries from reaping the gains from international capital mobility.¹¹ Third, and most importantly if the ultimate goal of the common exchange rate policy is monetary unification, capital controls would have to be eliminated some time before exchange rates are permanently locked and a common monetary policy is implemented. The reason is simply that a fully integrated financial market must be in place in order for a centrally determined monetary policy to be transmitted evenly and rapidly to each part of the monetary union. So this approach would imply the coexistence for some period of time of fixed exchange rates, free movements of capital, and potentially different monetary policies, that is the ingredients susceptible of leading to currency crises.

2. An alternative Asian path towards monetary stability and, if desired, monetary unification.

The model for the creation of a zone of monetary stability that emerged in Europe after the breakdown of the Bretton-Woods system focussed on stabilizing intra-European exchange rates. Formal mechanisms for the coordination of monetary policies were weak. Arguably the objectives of monetary policies across the continent were not even consistent with fixed exchange rates until the goals pursued by the German Bundesbank became the de facto common goals of other future members of the Euro area. In the meantime, and even afterwards since the commitments to follow the lead of the Bundesbank were not always believed, currency realignments were needed and often accompanied by mini crises. As restrictions on capital flows were finally eliminated altogether without full monetary coordination, the maxi crises of the 1990s erupted.

Rather than following the European approach towards the creation of monetary stability in the region, Asian central banks are well advised to adopt their own strategy that will be more robust and that can, if desired, lead to the same ultimate outcome. The approach must be compatible with liberalization of capital flows, possibly at different speeds in different countries but with the ultimate aim of creating a fully integrated market. Furthermore it must recognize that full monetary union requires a single monetary policy determined by a single central bank. It is therefore necessary that the approach leads to an agreement on the form of such an institution and on its mandate. This will not happen unless the objectives of existing monetary authorities are compatible. Although these requirements may sound daunting, it is possible to sketch the outlines of an evolutionary approach towards the creation of a zone of monetary stability and financial integration in Asia based on these principles. The key is to allow each central bank to implement its own monetary policy during the transition period, but to agree on a consistent objective to be pursued by all.¹² The obvious candidate for such an objective is an inflation target. In the past twenty-odd years inflation targeting has emerged as the dominant paradigm for monetary policy. While there can be many flavours of inflation targeting, the one essential common element is that control of inflation should be the overriding objective of monetary

¹¹ As already noted, there is some dispute as to the size of these gains, but they are presumably positive.

¹² Note that unless such an agreement can be achieved, there is no point in trying to achieve monetary unification in the first place.

policy.

The first element of an Asian approach towards creating a region of monetary stability should thus be to adopt common objectives for central bank policies in the region, and these should be stated in terms of an inflation target.¹³ To be compatible with liberalization of international capital flows, there should be no commitment towards maintaining a particular exchange rate level. Of course, this does not mean that the exchange rate should be ignored in the implementation of the monetary policy strategy. Indeed there is a presumption that attention should be paid to the information contained in exchange rate movements when the inflation targeting strategy is implemented.¹⁴

As financial markets become fully integrated, and if inflation objectives of the regional central banks are sufficiently similar, interest rates are likely to become highly correlated across the economies. Exchange rates are also likely to be relatively stable. These assertions follow logically if the economies in question are subject to similar types of shocks and therefore follow similar cyclical evolutions, conditions that are necessary for them to be good candidates for monetary unification in the first place.¹⁵

Once interest rate policies have converged, countries can formally agree to centralize monetary policy decisions in a common central bank, which has been established in the intervening period, or they can decide to delegate it to an existing central bank.¹⁶ In the first case the delegation of monetary policy will be carried out simultaneously with the introduction of a new common currency, and in the second case with making the currency of the chosen central bank the common currency in the group. Of course, there is no requirement that the last step of the approach – that of adopting a common currency – be implemented by all countries in the region. The benefits from financial integration and monetary stability will be forthcoming anyway even if those of a common currency will not.

The advantages of the approach to monetary integration that I have sketched here over the alternative approach based on the European model of exchange rate stabilization are that it is compatible with increasing integration of financial markets, it naturally evolves from a system where central banks pursue similar objectives in their own self interest which makes it incentive compatible, and it allows for a ‘variable geometry’ of the final area that adopts a common currency. In the next and final section I examine briefly what this geometry might look like in East Asia.

¹³ For central banks such as the Hong Kong Monetary Authority that have a long-standing successful commitment to a rigidly fixed exchange rate in the context of complete capital mobility, there is no compelling reason to switch to inflation targeting. The following discussion thus refers to central banks that have followed discretionary monetary policies in the past.

¹⁴ It is also quite possible to use the exchange rate rather than some short-term interest rate as the operating target. This is indeed the approach of the Monetary Authority of Singapore.

¹⁵ There should be no illusion that the exchange rates will not fluctuate. Switzerland is highly integrated with economies in the Euro area and the Swiss National Bank has much the same objectives as the European Central Bank, yet the exchange rate between the Swiss Frank and the Euro does display a nontrivial degree of volatility.

¹⁶ Wyplosz (2004) emphasizes the role of institution building in the process of monetary integration process in Europe.

V. How many currencies in East Asia?¹⁷

The successful introduction of the euro and the success of the ECB in delivering monetary stability have naturally raised the question whether East Asia might be the next candidate for monetary unification. Not surprisingly, academics have had a field-day trying to determine whether an optimum currency area (OCA) considerations such a development would be feasible. Not surprisingly, there is no clear-cut answer, but a number of authors suggest that East Asian economies are no less an OCA than Europe was when it started its process towards unification.¹⁸ In view of the additional real integration that is likely to take place between now and the time the renminbi becomes fully convertible and financial markets in the region fully integrated, it is thus likely that East Asia would pass the OCA criteria as well (or badly depending on one's point of view) as the euro area did in 1998.

But in discussing monetary unification it is essential to keep in mind that a monetary union between a set of economies implies a single common currency which in turn requires a single common central bank. For this reason the decision to establish a monetary union becomes intensely political. Indeed, European monetary integration was as much, if not more, a political process as an economic one. Without strong support from the political leadership in France and Germany it is unlikely to have come about at all. Will the two dominant countries in East Asia, China and Japan, be able to play a similar role? In present circumstances this does not seem likely, but much water can flow under the bridge during a period between the initial proposals for monetary unification and its eventual realization. Judging by the European experience this can take as long as twenty years.

Nevertheless, even though current tensions will surely subside, it is difficult to imagine that the political pendulum will swing so far and so rapidly as to bring about a consensus within the current generation of leaders in favour of a supranational monetary authority in East Asia that would be vested with the same independence as the ECB enjoys in the euro area. Independent monetary policies and a floating exchange rate between China and Japan appear to be the more likely outcome for the foreseeable future.

Where does this leave the other economies in the region? The economies of Hong Kong and Taiwan are likely to integrate more and more comprehensively with the Mainland in the coming years. Economic cycles and price developments will become increasingly similar. On OCA grounds a greater monetary integration would be justified.

For other countries the outcome is less clear. As the third largest, South Korea's economy will have a size of something like a fifth and a third of those of Japan and China respectively. It will increase its trade and financial relations with both of its neighbours. It seems unlikely therefore to link its monetary fortunes completely with either one, especially since it also trades significantly with the US and Europe. In the absence of a region-wide exchange rate agreement it could well therefore also

¹⁷ This section draws heavily on Chapter 5 of Genberg, McCauley, Persaud, and Park (2005).

¹⁸ Park (2004) and Ito and Park (2004) review the empirical literature.

continue to opt for an independent monetary policy based on a domestic objective such as an inflation target.

Four other countries in the region – Indonesia, the Philippines, Thailand, and Singapore – are also inflation targeters.¹⁹ As argued above, this strategy is likely to be robust both as a transition arrangement towards monetary integration should this be deemed desirable and as an arrangement that will promote monetary stability among increasingly integrated independent monetary jurisdictions. The experiences of other small highly open economies support this claim. Canada, Norway, Sweden, and Switzerland are examples of economies that are highly integrated with neighbouring large currency areas and yet they are quite successfully pursuing independent monetary policies based on inflation targets.

What do these arguments imply for the ‘currency map’ of East Asia in a ten to twenty year horizon, assuming the renminbi will then be convertible? The discussion suggests that the renminbi, the won, and the yen will remain independent currencies and the corresponding central banks would gear monetary policy towards achieving internal stability objectives. The Hong Kong and the New Taiwanese dollars might become tightly linked to the renminbi. Further south and east there are two main scenarios. One is that countries such as Indonesia, Malaysia, Philippines, Singapore, and Thailand follow the successful inflation targeting model of many other countries in the world and retain independence of monetary policy with exchange rates that adjust (freely or in a managed fashion like Singapore is currently doing) as needed to achieve domestic goals.

The other model is that the smaller countries in the region will have decided that monetary unification is in their best common interest. After transiting through a period with independent but increasingly similar monetary policies as suggested in section IV.2, they will have established a common central bank, the SEAMA (South East Asian Monetary Authority) and introduced a common currency, the SEAMU (South East Asian Monetary Unit).

Whether one or the other of scenarios is played out, the region will be one with substantially integrated financial markets and with interest rate policies that are set independently by several central banks pursuing price stability as their principal objective. Interest rate movements are nevertheless be quite similar across the monetary areas because of the similarity in policy objectives and the high degree of real economic integration in the region. In jurisdictions that have retained their currencies exchange rates will be allowed to vary, but in view of the importance of exchange rate movements for inflation, monetary policy will pay close attention to such movements and de facto limit their size. Central banks that can agree to delegate their monetary policy to a supranational agency or a foreign central bank may form a currency union. The transition to such a union will be based on a common vision of

¹⁹ While the first three countries use a short-term interest rate as the operating target, Singapore has developed a strategy of targeting inflation based on using the effective exchange rate as the operating target. It has enjoyed considerable success in doing so. For recent discussions of monetary policy strategies in East Asian countries see the papers presented at the BIS/HKIMR conference on ‘Monetary Policy Approaches and Implementation in Asia’ available at https://www.hkimr.org/conferences_detail.asp?id=20&callfrom=previous&page=1

the objectives of monetary policy and not on a straightjacket based on an exchange rate peg. For this reason it will not be plagued by currency crises. The collision between financial integration and exchange rate arrangements will have been avoided.

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Appendix

Regression results using weekly data from 2000 to 2005. The estimated equation has the log-change in the US dollar value of the currency in the first column as the dependent variable and the log-change in the euro, the yen, and the won as the dependent variable (except as noted in the table).

Full Sample				
	EUR	JPY	KRW	R ²
IDR	0.079 (0.297)	0.082 (0.368)	0.371 (0.006)	0.050
JPY	0.342 (0.000)	n.a. n.a.	n.a. n.a.	0.140
KRW	-0.008 (0.805)	0.269 (0.000)	n.a. n.a.	0.176
PHP	0.017 (0.631)	0.065 (0.115)	0.117 (0.056)	0.039
SGD	0.146 (0.000)	0.180 (0.000)	0.165 (0.000)	0.519
THB	0.115 (0.000)	0.191 (0.000)	0.232 (0.000)	0.332
TWD	0.059 (0.001)	0.089 (0.000)	0.248 (0.000)	0.350

Year 2000				
	EUR	JPY	KRW	R ²
IDR	0.019 (0.918)	0.012 (0.967)	0.169 (0.692)	0.004
JPY	-0.012 (0.904)	n.a. n.a.	n.a. n.a.	0.000
KRW	-0.104 (0.096)	0.182 (0.051)	n.a. n.a.	0.127
PHP	-0.031 (0.732)	-0.188 (0.175)	0.153 (0.467)	0.047
SGD	0.143 (0.001)	0.160 (0.016)	0.052 (0.597)	0.286
THB	0.129 (0.122)	0.193 (0.124)	0.099 (0.603)	0.106
TWD	0.030 (0.329)	0.062 (0.179)	0.248 (0.001)	0.284

Year 2001				
	EUR	JPY	KRW	R ²
IDR	0.111 (0.735)	0.066 (0.844)	0.991 (0.057)	0.088
JPY	0.259 (0.062)	n.a. n.a.	n.a. n.a.	0.067
KRW	-0.163 (0.068)	0.236 (0.009)	n.a. n.a.	0.150
PHP	-0.128 (0.305)	0.270 (0.039)	0.049 (0.802)	0.109
SGD	0.120 (0.037)	0.105 (0.075)	0.221 (0.015)	0.295
THB	-0.016 (0.816)	0.145 (0.043)	0.372 (0.001)	0.340
TWD	0.143 (0.007)	-0.061 (0.247)	0.124 (0.126)	0.150

Year 2002				
	EUR	JPY	KRW	R ²
IDR	0.265 (0.196)	0.140 (0.475)	0.037 (0.889)	0.130
JPY	0.780 (0.000)	n.a. n.a.	n.a. n.a.	0.442
KRW	0.041 (0.703)	0.337 (0.001)	n.a. n.a.	0.359
PHP	0.189 (0.041)	0.118 (0.179)	-0.107 (0.374)	0.242
SGD	0.094 (0.084)	0.269 (0.000)	0.030 (0.667)	0.671
THB	0.189 (0.055)	0.254 (0.008)	0.106 (0.404)	0.493
TWD	0.069 (0.286)	0.127 (0.042)	0.205 (0.018)	0.465

Year 2003				
	EUR	JPY	KRW	R ²
IDR	-0.038 (0.627)	0.159 (0.143)	0.306 (0.012)	0.222
JPY	0.341 (0.001)	n.a. n.a.	n.a. n.a.	0.192
KRW	0.061 (0.518)	0.306 (0.015)	n.a. n.a.	0.170
PHP	0.028 (0.684)	0.080 (0.388)	0.123 (0.227)	0.091
SGD	0.130 (0.003)	0.221 (0.000)	0.221 (0.001)	0.632
THB	0.035 (0.540)	0.233 (0.004)	0.183 (0.033)	0.375
TWD	0.000 (0.992)	0.151 (0.001)	0.082 (0.091)	0.357

Year 2004				
	EUR	JPY	KRW	R ²
IDR	0.079 (0.525)	0.162 (0.228)	0.231 (0.339)	0.118
JPY	0.385 (0.005)	n.a. n.a.	n.a. n.a.	0.141
KRW	0.053 (0.462)	0.244 (0.001)	n.a. n.a.	0.252
PHP	0.081 (0.045)	-0.001 (0.980)	-0.005 (0.948)	0.088
SGD	0.169 (0.000)	0.260 (0.000)	0.022 (0.770)	0.684
THB	0.104 (0.067)	0.139 (0.024)	0.374 (0.001)	0.489
TWD	0.019 (0.623)	0.096 (0.027)	0.477 (0.000)	0.627

Year 2005				
	EUR	JPY	KRW	R ²
IDR	0.091 (0.529)	-0.139 (0.377)	0.306 (0.187)	0.047
JPY	0.544 (0.000)	n.a. n.a.	n.a. n.a.	0.321
KRW	0.078 (0.381)	0.225 (0.017)	n.a. n.a.	0.215
PHP	0.081 (0.247)	0.047 (0.535)	0.061 (0.587)	0.100
SGD	0.153 (0.001)	0.158 (0.002)	0.305 (0.000)	0.701
THB	0.104 (0.079)	0.161 (0.014)	0.314 (0.001)	0.532
TWD	0.019 (0.767)	0.169 (0.018)	0.397 (0.000)	0.477

DISCUSSION

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The question that Hans Genberg, executive director for research at the Hong Kong Monetary Authority raises in his insightful article “Exchange-Rate Arrangements and Financial Integration in East Asia: On a Collision Course?” deserves close attention. The essence of his argument is that if the monetary authorities in East Asia pursue sound monetary policies aimed at long-run price stability, exchange rates will be less volatile and both real and financial sectors will benefit. Greater financial integration in the region, which must necessarily accompany greater trade flows, means that capital freedom is an essential long-term policy goal. At present the biggest player in the region, China, still has a mostly closed capital account. Although Genberg does not discuss how to end financial repression in China, I will address that issue. But first, I wish to briefly summarize and discuss the key points in his article.

Monetary Stability in East Asia

Genberg surveys the current exchange-rate regimes in East Asia—Hong Kong’s currency board system; China and Malaysia’s managed float with respect to a currency basket; Singapore’s currency basket approach but with an inflation target regime using the effective exchange rate as an intermediate target; Indonesia, Philippines, South Korea, Taiwan, and Thailand’s somewhat flexible exchange rate regimes with central bank policy aimed at an inflation target using a short-term interest rate as the intermediate target; and Japan’s “floating-rate” system.

Monetary unification is a long way off in this region. Clearly, the European model of a single currency and a supranational central bank is neither economically nor politically feasible now or in the near future. Genberg assumes that East Asian countries will eventually liberalize capital flows, a necessary condition for later monetary unification. But he recognizes that sequencing matters and that Asian countries “should

follow a path where independent central banks coordinate monetary policies”—either “explicitly through some institutional framework or implicitly through the adoption of common objectives.” Those countries that later desired closer ties could bind themselves to a common currency, but that would be a bottom-up rather than a top-down process. Spontaneous unification makes a great deal of sense.

In the case of Hong Kong, China, and Taiwan, one could argue that the increasingly close and strong trade and financial ties will naturally lead to a more significant role for the renminbi (RMB). One could envision modifying the Hong Kong currency board to include both the dollar and the yuan, with an increasing weight being given to the yuan.¹ With capital account liberalization in China, people would be free to choose among the parallel currencies and it is likely that a single currency (the RMB) could emerge as the key currency. Of course, the yen, the dollar, and the euro would continue to be strong international currencies.

The pace of the transition, of course, will depend on politics as much as on economics. Until China is willing to allow a freer flow of information and greater capital freedom, including privatization of capital assets and liberalization of interest rates, it is premature to talk about financial integration and currency competition.

A Currency Basket Approach

A true currency basket approach would require transparency so that currencies in the basket were fully convertible and the weights known. Arbitrage would keep the market price of the basket in line with the official price, and the domestic currency would maintain its purchasing power relative to the basket, while allowing market forces to determine bilateral exchange rates.² For example, with respect to China, the RMB/dollar rate could vary, while the value of the RMB relative to the basket would remain stable. China has not adopted such an approach; the RMB/dollar rate was allowed to appreciate

¹ See Kam Hon Chu, “From Relink to Parallel Currencies to Monetary Union,” *HKCER Letters* 75 (Sept.-Oct. 2003). Available at www.hku/hkcer/articles/v75/khchu.htm.

² *Ibid.*, pp. 3–4.

by 2.1 percent in July 2005, when the new exchange rate regime was announced, but has only been allowed to increase by less than 1 percent since that time.

The Singapore system may be described as a “Basket-Band-Crawl” (BBC), but as Bennett McCallum has recently argued, it is better seen as an inflation target system in which the exchange rate is used as “an intermediate information or instrument variable that is involved in the procedures used to achieve the objective of low inflation, augmented perhaps by output gap considerations. The Singapore system is, therefore, one variant of a floating exchange-rate regime.”³ The Monetary Authority of Singapore has allowed substantial appreciation of the Singapore dollar on a trade-weighted basis to avoid domestic inflation.⁴ McCallum does not see China adopting a Singapore-type system.

Avoiding a Collision Course

Assuming that financial integration is a major policy objective in East Asia, would the adoption of a common basket peg be stabilizing or result in an exchange-rate crisis? That is the central issue of Genberg’s article, which he explores in section IV.

There would be bands around the central parities and the parities themselves would be flexible. Such a system, notes Genberg, would not be immune to speculative attacks in a world of capital mobility. Moreover, widening the bands would weaken the nominal exchange rate anchor, as would a discretionary crawl. Genberg argues that introducing capital controls to mitigate exchange-rate crises under a pegged (basket) regime would be unwise. The problem is that with no common monetary policy, a pegged exchange rate regime and free capital mobility could lead to currency crises. For that reason, Genberg favors the establishment of “a zone of monetary stability” in East Asia rather than a common basket peg.

³ Bennett T. McCallum, “Is Singapore the Model for China’s New Exchange Rate Policy?” Paper prepared for the Shadow Open Market Committee Meeting, December 5–6, 2005, pp. 10–11.

⁴ *Ibid.*, pp. 3–4.

The transition to the zone would be “evolutionary” with “each central bank to implement its own monetary policy during the transition period, but to agree on a consistent objective to be pursued by all.” His preferred objective is inflation targeting.

To meet that objective and to realize financial integration, “there should be no commitment towards maintaining a particular exchange rate level.” With stable money and free capital flows, exchange rates should also be relatively stable in the region, assuming those economies are subject to similar shocks.

The key conclusion, which I fully support, is that monetary stability and capital freedom do not necessitate a common currency or a supranational central bank: “The benefits from financial integration and monetary stability will be forthcoming anyway even if those of a common currency will not.” Instead of following Europe’s approach to monetary unification through exchange-rate stabilization, Genberg’s approach is noteworthy because “it naturally evolves from a system where central banks pursue similar objectives in their own self interest.”

The Financial Architecture in East Asia

The objective in establishing a club of financial stability in East Asia is to make price stability the primary goal of monetary policy, while allowing each country or group of countries to select an appropriate exchange-rate regime consistent with capital freedom—that is, financial integration. Genberg believes, as I do, that China and Japan would best be served by using domestic monetary policy to stabilize the domestic price level while allowing the foreign exchange value of the RMB and yen to be determined by market forces. Hong Kong will likely link its currency more closely to the RMB as that currency becomes fully convertible. And at some point Taiwan may also find it beneficial to adopt the RMB—but that obviously will not occur until the Mainland liberalizes both its capital markets and its political system.

South Korea, Indonesia, Malaysia, the Philippines, Thailand, and Singapore are likely to adhere to an inflation target regime while letting their exchange rates “float.” Monetary credibility, however, must be established. Central banks that cannot establish a

credible commitment to long-run price stability could adopt a currency board by linking to a credible foreign central bank, or, in Genberg's view, could "agree to delegate their monetary policy to a supranational agency." The fundamental objective, however, would be monetary stability—not a rigid exchange rate peg as a means to make the transition to a common currency.

Ending Financial Repression in China⁵

As a key player in East Asia, China needs closer scrutiny. In particular, one cannot simply assume that China will eventually move toward full convertibility and financial integration, without investigating the political economy of the transition from financial repression to capital freedom.

China has made significant progress since 1978 in opening its economy to the outside world, but economic liberalization largely stopped at the gates of the financial sector. Investment funds are channeled through state-owned banks to state-owned enterprises (SOEs), there are few investment alternatives, stock markets are dominated by SOEs, interest rates are set primarily by government fiat, the capital account is closed, and the exchange rate is tightly managed.

The consequences of China's financial repression are easy to see: a sea of nonperforming loans; misallocation of capital, with overinvestment in the state sector and underinvestment in the private sector; politicization of investment decisions and widespread corruption; poor performance of stock markets even though economic growth has been robust; an undervalued real exchange rate; and stop-go monetary policy.

By suppressing two key macroeconomic prices—the interest rate and the exchange rate—and by failing to privatize financial markets and allow capital freedom, China's leaders have given up flexibility and efficiency to ensure that the Chinese Communist Party (CCP) retains its grip on power.

⁵ This section and the following sections draw on James A. Dorn, "Ending Financial Repression in China," *Economic Development Bulletin* No. 5 (January 26, 2006), Washington: Cato Institute.

Controls on the free convertibility of currencies and on capital transactions violate private property rights and attenuate both economic and personal freedom. Indeed, as F. A. Hayek warned in his classic book *The Road to Serfdom* (1944):

The extent of the control over all life that economic control confers is nowhere better illustrated than in the field of foreign exchanges. Nothing would at first seem to affect private life less than a state control of the dealings in foreign exchange, and most people will regard its introduction with complete indifference. Yet the experience of most Continental countries has taught thoughtful people to regard this step as the decisive advance on the path to totalitarianism and the suppression of individual liberty.⁶

Once exchange and capital controls are imposed, they are difficult to remove. Government officials and special interest groups will profit at the expense of the public and use the force of law to plunder rather than protect property rights. That has been the experience in China and was clearly the case in Europe after convertibility was suspended in 1931. When convertibility was restored in 1958, Ludwig Erhard, vice-chancellor and minister for economic affairs of the German Federal Republic, stated, “Of all the many possible forms which integration of the free world can take, free convertibility of currencies is the most fruitful.”⁷

Although China has made its currency convertible for current-account transactions, the capital account is still largely closed. Moreover, residents are often discriminated against in favor of foreigners. Making the transition to capital freedom in China would greatly increase economic and personal freedom, and help bring about political reform.

⁶ F.A. Hayek, *The Road to Serfdom* (Chicago: University of Chicago Press, 1944), p. 92, n. 2.

⁷ Ludwig Erhard, *The Economics of Success* (New York: Van Nostrand, 1963), p. 247.

The best way to achieve that goal is to stick to a policy of engagement rather than succumb to what Alan Greenspan has called “creeping protectionism.”⁸

Yasheng Huang, an economist at MIT, has shown that China’s financial market repression is substantial and got worse in the 1990s relative to the 1980s. Using the World Bank’s “World Business Environment Survey (WBES) 2000” and other indicators, he finds “a systematic, pervasive, persistent bias in financial policies in favor of the least efficient firms in the Chinese economy—SOEs—at the expense of the most efficient firms,” namely, “China’s small, entrepreneurial and private enterprises.”⁹ In response to a survey question, which assessed the extent of the “general financing constraint” (GFC) in selected countries as perceived by a sample of entrepreneurial firms in the nonstate sector in 1999–2000, the WBES found that 66.3 percent of the Chinese firms considered the GFC to be a “major obstacle.” That proportion is the highest among Asian countries and exceeds the proportion in most transitional economies, including Russia (Figure 1).¹⁰

While the state sector produces less than one-third of industrial output value, it receives two-thirds of the commercial credit flowing through state-owned banks. The lack of transparency and the politicization of the lending process have led to considerable waste as seen in the high proportion of nonperforming loans, estimated to be 25 percent or more.¹¹ Beijing has injected billions of dollars into the large state-owned banks and is slowly transforming them into joint-stock companies, but privatization is taboo.

The People’s Bank of China (PBC) continues to peg the nominal exchange rate at a disequilibrium level, as indicated by the rapid accumulation of foreign exchange reserves that now exceed \$800 billion. To prevent inflation, the PBC sells securities to drain off the RMB that is created when the bank buys foreign currencies. That “sterilization”

⁸ Alan Greenspan, “The Evolving U.S. Payments Imbalance and Its Impact on Europe and the Rest of the World,” *Cato Journal* 24, nos. 1–2 (Spring/Summer 2004), p. 11.

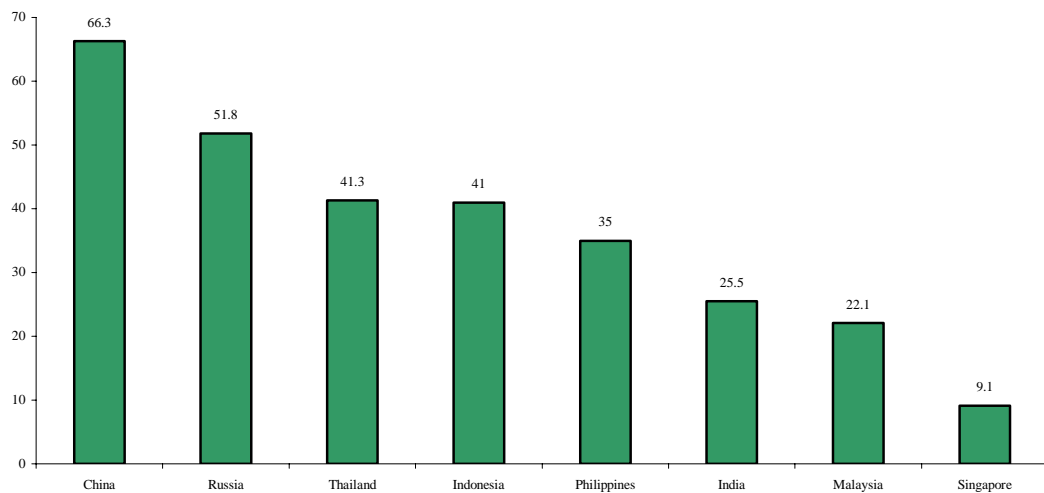
⁹ Yasheng Huang, “Do Financing Biases Matter for the Chinese Economy?” Paper presented at the Cato Institute’s 23rd Annual Monetary Conference, Washington, D.C., November 3, 2005, p. 4.

¹⁰ *Ibid.*, Table 1, p. 19. This table is based on the World Bank’s “World Business Environment Survey (WBES) 2000.”

¹¹ Jonathan Anderson, “How to Think About China (Part 3): Which Way Out for the Banking System?” *Asian Economic Perspectives*, UBS Securities Asia Ltd., May 9, 2005, pp. 7–8.

process, however, becomes more difficult as the size of China's current-account surplus grows.

Figure 1
Percentage of Nonstate Firms Subject to Major Financing Constraints,
Selected Countries, 1999–2000



Source: Yasheng Huang, "Do Financing Biases Matter? Table 1, p. 19, based on "World Business Environment Survey (WBES) 2000."

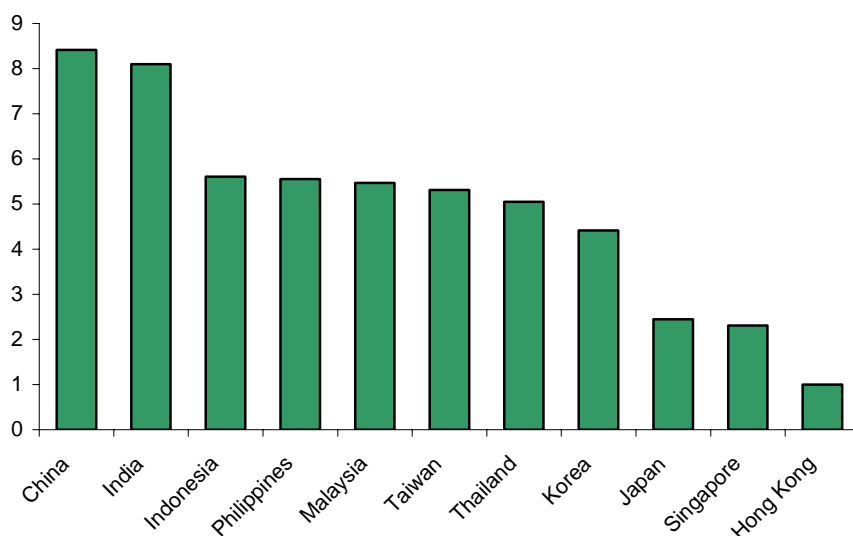
Although China moved to a new exchange rate regime on July 21, 2005, in which the RMB is officially pegged to a basket of currencies, there has been relatively little movement in the RMB/dollar exchange rate and the daily trading band for the RMB/dollar rate remains fixed at 0.3 percent. However, institutional changes are occurring to deepen the forex market and widen the range of choice for traders.¹²

China has the most restricted capital markets in Asia. Portfolio investments are heavily controlled, as are most other capital-account transactions. Changes are occurring, such as more lenient treatment of qualified foreign institutional investors, but at a snail's

¹² See Zhang Dingmin, "Forex Rate Forming Mechanism Reformed," *China Daily*, January 4, 2006, p. 1, and Steve Johnson, "Traders Price in Surging Renminbi," *Financial Times*, January 6, 2006.

pace.¹³ A ranking of Asian countries based on the UBS capital restrictiveness index indicates that China has a long way to go before it reaches the degree of capital freedom enjoyed by top-rated Hong Kong (Figure 2).¹⁴

Figure 2
UBS Capital Restrictiveness Index



Source: Jonathan Anderson, “How to Think about China (Part 6),” November 28, 2005, p. 23, based on CEIC, IMF, and UBS estimates.

Capital and exchange controls clash with trade liberalization and are a heavy burden on China’s economy. Of the top 10 global trading nations, only China has extensive capital controls. In addition to restricting individual freedom, those controls impose high administrative costs, distort investment decisions, misallocate capital, and corrupt what would naturally be mutually beneficial free-market exchanges.¹⁵

¹³ On recent reforms, see Fred Hu, “Capital Flows, Overheating, and the Nominal Exchange Rate Regime in China,” *Cato Journal* 25, no. 2 (Spring/Summer 2005).

¹⁴ The UBS capital restrictiveness index is based on a score of 10 (closed capital account) to 1 (open capital account). In calculating this index, UBS takes account of “the number of legal impediments to capital account transactions” and “the size and variability of actual ex post capital flows.” Jonathan Anderson, “How to Think About China (Part 6): Seven Ways China Won’t Change the World,” *Asian Economic Perspectives*, UBS Securities Asia Ltd., November 28, 2005, p. 23, n. 3.

¹⁵ See Hu, p. 359.

Trade liberalization must be accompanied by financial reform if China is to continue to develop. It makes no sense for a capital-poor country like China to run persistent current-account surpluses that lead to net capital outflows—particularly, the massive accumulation of official foreign exchange reserves used primarily to purchase U.S. government securities. Ending draconian capital controls and allowing widespread privatization would transform China’s socialist capital markets into genuine markets with real owners who would be responsible for their decisions and who would steer capital to its highest valued uses—as determined by free markets not state planners.

John Greenwood, chief economist at Invesco Asia, Ltd., has advocated that China abolish capital controls, float the RMB, and privatize state-owned banks and firms. In his view, “If China’s capital markets and its industries were normalized (through deregulation, proper implementation of the rule of law, the encouragement of private markets, and extensive private ownership), then China’s balance of payments would no doubt undergo a major transformation.”¹⁶

The transition to capital freedom will be smoother, says Greenwood, if the central bank pursues a policy of monetary stability—that is, provides a framework for long-run price stability. To do so, however, requires that the PBC let market demand and supply determine the equilibrium value of the exchange rate and focus primarily on controlling domestic money and credit growth, which means interest rates must also be liberalized. On the other hand, “under a fixed nominal rate framework, external capital controls are much more likely to be maintained and the adjustments to the trade and current account are therefore much less likely to occur.”¹⁷

To those who argue that capital account liberalization would destabilize China, just as it did to other emerging market countries during the 1997–98 Asian financial crisis, Greenwood argues that the root cause of that crisis was not capital freedom but rather the pegged exchange rate system combined with excessive growth of money and credit beginning as early as 1993. “The general lesson is that to control money and credit

¹⁶ John Greenwood, “The Impact of China’s WTO Accession on Capital Freedom,” *Cato Journal*, 21, no. 1 (Spring/Summer 2001), p. 93.

¹⁷ *Ibid.*, pp. 93–94.

growth within reasonable ranges that are compatible with low inflation in the longer run, the external value of the currency must be free to adjust—especially upwards.”¹⁸

If China chooses to keep the RMB/dollar rate undervalued and maintains capital controls, it will continue to experience stop-go monetary policy as the domestic money supply responds to the balance of payments and the PBC attempts to sterilize capital inflows. This schizophrenic monetary policy—trying to use monetary policy to manage both the exchange rate and the price level—is untenable in the long run if China wants to become a world-class financial center.

The Question of Sequencing

There has been much discussion regarding how China should sequence its economic reforms and make the transition to capital freedom. It is clear that opening capital markets without reforming state-owned banks and without maintaining monetary stability could lead to substantial capital flight and exacerbate the problem of nonperforming loans. Likewise, there must be an effective legal system to protect newly acquired private property rights.

In a recent interview, Zhou Xiaochuan, the head of the PBC, emphasized that China is committed to create an institutional framework for a more flexible exchange rate regime “based on market demand and supply,” and “gradually realize RMB convertibility . . . by lifting the restrictions on cross-border capital movements in a selective and step-by-step manner.” In sequencing the financial sector reforms, the first priority is to put the banking system on a sound footing by recapitalizing the large state-owned banks and turning them into joint-stock companies with the participation of foreign strategic investors. Further progress must also be achieved in widening the scope of foreign exchange transactions, including liberalizing the capital account. Zhou recognizes that institutional change cannot occur overnight because “people need some time to learn and adapt to change.” A new “mindset” must be developed. Moreover, he understands that

¹⁸ John Greenwood, “The Real Issues in Asia,” *Cato Journal* 20, no. 2 (Fall 2000), p. 146.

China “cannot wait to start reforming the exchange rate regime until all banking reform measures have been completed.”¹⁹ Reform measures must occur along a broad front.

Policy Recommendations

Economic development—properly understood as “an increase in the range of effective alternatives open to people”²⁰—requires the protection of both economic and other liberties. Without secure private property rights and economic freedom, personal freedom will suffer. Economic liberalization, privatization, and free-market competition are the only effective means to expand individual choices and, hence, to develop.

The United States and China need to continue the policy of engagement and recognize that it is more important to focus on the issue of capital freedom than on the narrow question of the proper exchange rate. China should continue to liberalize its exchange rate regime, open its capital markets, allow full convertibility of the RMB, liberalize interest rates, and use domestic monetary policy to achieve long-run price stability. Most important, China needs to privatize its stock markets, its banks, and its firms.

Many of those recommendations have already been accepted in principle as long-run policy goals. Indeed, the PBC’s Monetary Policy Committee, at its third quarterly meeting in 2005, concluded:

- “The market itself should be allowed to play its role in economic restructuring.”
- “Market-based interest rate reform policies should be continuously carried out.”
- “Measures should be taken to further improve the managed floating exchange rate regime and maintain the exchange rate ...at an adaptive and equilibrium level.”

¹⁹ “Governor Zhou Xiaochuan Speaks on Issues Related to the Reform of the Exchange Rate Regime,” People’s Bank of China News, September 10, 2005, pp. 1–2, 13. Available at www.pbc.gov.cn/english/detail.asp?col=6400&id=572.

²⁰ Peter Bauer, *Economic Analysis and Policy in Underdeveloped Countries* (Durham, N.C.: Duke University Press, 1957), p. 113.

- “Efforts should be made to advance financial reform” and “to enhance the effectiveness of monetary policy transmission.”²¹

Those pro-market policy recommendations are a positive sign and a clear signal that China’s top policymakers are aware of what needs to be done to improve the financial architecture.

²¹ “Monetary Policy Committee of the PBC Held the 3rd Quarterly Meeting of 2005,” People’s Bank of China News, September 26, 2005. Available at www.pbc.gov.cn/english/detail.asp?col=6400&id=593.

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At first, I point out some backgrounds for this paper. Firstly, we learnt some lessons from the Asian Currency Crisis in 1997. Among them, it is very important to experience that official and *de facto* dollar peg system had adverse effects on macroeconomy and currencies in the region. Secondly, East Asian countries have strong economic relationships with intra-regional countries and European countries as well as the United States in terms of merchant and service trades and cross-boarder capital transactions including FDI, portfolio investments and bank loans. Also production network have been established in East Asian region. Trade volumes of intermediate goods as well as final goods have been increasing among East Asian countries. Lastly, under a variety of exchange rate systems in East Asia, the US dollar depreciation makes inter-regional exchange rates unstable and misaligned.

This paper pointed out two developments in terms of both exchange rate coordination and greater financial integration in East Asia. One development is that the increased trade integration among economies in the region has led to calls for coordination of exchange rate policies lest competitive depreciations lead to artificial distortions in competitiveness, disruptions of trade, and dislocation of production. The other development is that it is recognized that international capital flows can bring substantial benefits and this ambiguous attitude towards international capital flow have been to encourage financial integration within the region. This paper takes these two developments towards greater financial integration on the one hand and proposal for exchange rate coordination on the other.

This paper gives us some important points of investigation about issues related with exchange rate policy coordination in East Asia. Firstly, this paper considers the proposals for exchange rate policy coordination that have focused on some form of common exchange rate peg. It emphasizes the difference between pegs that link the currencies to an external anchor and those that are based on an internal unit of account. It set out their

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implication for the conduct of monetary policy in the countries that join the exchange rate arrangement.

Secondly, this paper proposes an alternative Asian path towards monetary stability and monetary unification via regional monetary policy coordination, that is coordination in introducing and conducting inflation targeting in a situation of free mobility of capital. The Asian approach should be to adopt inflation targeting without commitment towards maintaining a particular exchange rate level.

Thirdly, this paper discusses “currency map” of East Asia in a ten to twenty horizon, assuming the RMB will be convertible. It forecasts that Japan and China will adopt independent monetary policies and floating exchange rates. Hong Kong and Taiwan will share the same currency with the Mainland, China. The author showed two scenarios for South East Asian countries. One is that retaining independence of monetary policy, that is, inflation targeting with flexible or managed floating exchange rate system. The other is that establishing of a common central bank (South East Asian Monetary Authority) and introducing a common currency (South East Asian Monetary Unit).

I have three comments on the above-mentioned points in this paper.

The first comment is related with a common currency basket arrangement for East Asia. It includes not only fixing home currency to the common currency basket but also managed floating with reference to a common currency basket. East Asian currencies should be stabilized against the intra-regional currencies, the US dollar and the euro because East Asian economies have strong relationships with intra-regional countries, the United States, and European countries in terms of price competitiveness, trade and current accounts, and capital flows. It is represented by an effective exchange rate when we focus on trade account.

Firstly, they can achieve the stabilization for intra-regional exchange rates by targeting their currencies towards a common currency basket that is composed of regional currencies. Its problem is how stable the common currency basket is. Secondly, they can achieve the stabilization for both intra-regional exchange rates and the outside currencies by targeting their currencies towards a common currency basket is composed of the G3

currencies (or G2 currencies for Japan). Its problem is related with inclusion or exclusion of the Japanese yen.

I show one example of a common currency basket for East Asia. Ogawa and Shimizu (2005) propose creation of an Asian Monetary Unit (AMU) and AMU Deviation Indicators¹ for East Asian currencies in order to contribute to coordinated exchange rate policies in East Asia. AMU: a weighted average of ASEAN10+3. Shares of trade volumes and GDP measured at PPP are used to calculate the weights. Figure 1 shows that a value of the AMU in terms of a currency basket that is composed of the US dollar and the euro is relatively stable. However, Figure 2 shows that intra-regional exchange rates are fluctuating widely. Especially, the AMU Deviation Indicator of the Korea won is overvalued by 15% compared with its benchmark rate while the AMU Deviation Indicator of the Philippine peso is undervalued by 18% compared with its benchmark rate. Thus, the value of the AMU in terms of a currency basket of the US dollar and the euro is stable. On one hand, some East Asian currencies are overvalued and undervalued.

The second comment is related with the Asian approach. The Asian approach, that is a monetary cooperation coordination approach, is in part good for East Asian region. The monetary policy coordination approach can be taken in a form of a common inflation targeting to stabilize intra-regional exchange rates in the long run or in terms of the purchasing power parity. However, it cannot stabilize the intra-regional exchange rates in the short-run. Accordingly, an exchange rate band or managed floating exchange rate system with reference to a common currency basket should be accompanied with the monetary policy coordination in order to prevent from volatility and misalignment of the intra-regional exchange rates.

The last comment is related with the “currency map.” As for introducing a common currency into ASEAN, an anchor currency should be included into a common currency basket and a common currency in order that they should have a stable value and a confidence. Are there any ASEAN currencies as an anchor currency? The Japanese yen should be included into a common currency basket or a common currency as an anchor

¹ AMU and AMU Deviation Indicators can be downloaded from a website of RIETI (<http://www.rieti.go.jp/users/amu/en/index.html>).

currency in the future although there are difficulties in Japan's joining an East Asian common currency area for the moment because of different stages of economic developments and asymmetric shocks among East Asian countries and Japan. Also the RMB should be included into a common currency basket or a common currency in order that China should share a common currency system with the rest of East Asia and contribute to stability of intra-regional exchange rates among East Asian currencies.

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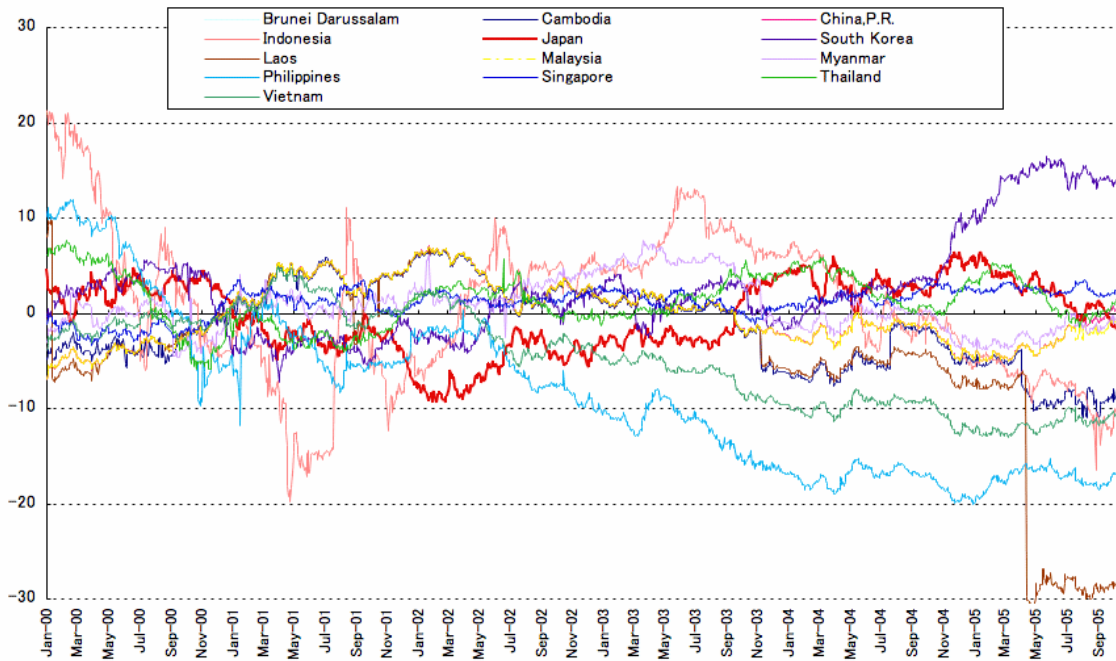
US\$-euro/AMU

Figure 1. AMU in terms of the US\$-euro (benchmark year=2000/2001)



(%)

Figure 2. Nominal AMU Deviation Indicators (benchmark year=2000/2001, daily)



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