CURRENCY BASKET REGIMES FOR SOUTHEAST ASIA:
THE WORST SYSTEM WITH THE EXCEPTION OF
ALL OTHERS

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ABSTRACT

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Following the recent financial crises in Southeast Asia and elsewhere, the perennial issue of the exchange rate policy options for small and open developing countries has resurfaced. There seems to be an emerging consensus that the frequency with which “soft pegs” have been susceptible to speculative attacks in this era of escalating global capital flows, has increased pressure for developing countries to adopt corner solutions to exchange rates arrangements. This paper takes issue with this popular - "one-size-fits-all" - prescription of exchange rate arrangements for developing countries and explores exchange rate policy options for Southeast Asia

**Keywords:** currency baskets, exchange rate regimes, fixed regimes, floating regime, Southeast Asia

**JEL Classification:** F31, F33, F41

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NON TECHNICAL SUMMARY

Following the recent financial crises in Southeast Asia and elsewhere, the perennial issue of the exchange rate policy options for small and open developing countries has resurfaced. There seems to be an emerging consensus that the need to depoliticize exchange rate movements, along with the frequency with which “soft pegs” have been susceptible to speculative attacks in this era of escalating global capital flows, has increased pressure for developing countries to adopt corner solutions to exchange rates arrangements. In other words, according to many observers, the exchange rate option for such countries boils down to one between flexibility, on the one hand, and credible pegging, on the other. A “credible peg”/“hard peg”/“super fix” in turn refers to one of three possibilities: a currency board arrangement, effectively abandoning the domestic currency for a new currency (monetary union) or using domestically the currency of another country (dollarization or eurorization). Countries are however advised to steer clear of arrangements that lie anywhere between these two ends of the spectrum as they are seen as inherently unstable.

This paper takes issue with this popular - “one-size-fits-all” - prescription of exchange rate arrangements for developing countries in general. Advocates of corner solutions have been insufficiently sensitive to the drawbacks of such arrangements; it is wrong merely to assume that the best regime will be either flexible exchange rates or super fixes without a proper consideration of problems associated with each of these regimes. While it is understandable that attention has been focussed on recent currency crises, these may point more to the weaknesses of pegging to one specific currency than about the weaknesses of pegging in general.

We examine the case of currency basket regimes for Southeast Asia (an instance of an intermediate or a “middle of the road solution”), highlighting the optimal weight of the yen in the regional currency baskets, as well as how such a basket might operate. In recognition of the close interlinkages and mutual real and monetary interdependencies that exist between countries in Southeast Asia (and possibly the larger East Asia), we suggest there may be a case for a common regional basket, with the yen and US dollar each constituting around one-third to two fifths of the regional currency basket (the euro and other currencies making up the remainder). However, the currency basket arrangements should involve a “fairly high” element of flexibility rather than a single-minded defense of a particular rate. This may be best achieved by a variant on sliding parities and wider bands, the extent of which varying across the countries depending on individual circumstances and policy preferences.
1. **Introduction**

Following the recent financial crises in Southeast Asia and elsewhere, the perennial issue of the exchange rate policy options for small and open developing countries has resurfaced. There seems to be an emerging consensus that the need to depoliticize exchange rate movements, along with the frequency with which “soft pegs” have been susceptible to speculative attacks in this era of escalating global capital flows, has increased pressure for developing countries to adopt corner solutions to exchange rates arrangements. In other words, according to many observers, the exchange rate option for such countries boils down to one between flexibility, on the one hand, and credible pegging, on the other. A “credible peg”/“hard peg”/“super fix” in turn refers to one of three possibilities: a currency board arrangement, effectively abandoning the domestic currency for a new currency (monetary union) or using domestically the currency of another country (dollarization or eurorization). Countries are however advised to steer clear of arrangements that lie anywhere between these two ends of the spectrum as they are seen as inherently unstable (Table 1). Thus, for instance, the recent influential report of the International Financial Institution Advisory Commission (IFIAC) concluded that

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\text{(p)egged exchange rate systems have proved costly and usually}
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1 Mussa et al. (2000) summarize the current economic environment facing developing and transition economies and their corresponding implications for the choice of exchange rate arrangements.
unsustainable in a crisis… Countries should choose either firmly fixed rates or fluctuating rates...(M)ixed systems typically work poorly…countries should avoid pegged or adjustable rates.

The Independent Task Force sponsored by the Council on Foreign Relations made a similar point and recommended that developing countries should “just say no to supporting pegged exchange rates” (Hills and Associates, 1999). In similar vein, Lawrence Summers (1999) has proclaimed of exchange rate policy options that

(t)here is no single answer, but in light of recent experience what is perhaps becoming increasingly clear - and will probably be increasingly reflected in the advice that the international community offers – is that in a world of freely flowing capital there is shrinking scope for countries to occupy the middle ground of fixed but adjustable pegs.

Consistent with these recommendations, the IMF data on exchange rate arrangements in developing countries reveals a de jure trend away from soft peg arrangements; a phenomenon colorfully described in various places as the hypothesis of the “vanishing intermediate regime”, the “missing middle” or “hollowing of the middle”. For instance, the share of countries officially classified as having a pegged exchange rate regime dropped from 97 percent in 1970 to just 11 percent by 1999 (Table 2).

This paper takes issue with this popular - “one-size-fits-all” - prescription of exchange rate arrangements for developing countries in general. Advocates of corner solutions have been insufficiently sensitive to the drawbacks of such arrangements; it is wrong merely to assume that the best regime will be either flexible exchange rates or super fixes without a proper consideration of problems associated with each of these regimes. While it is understandable that attention has been focussed on recent currency crises, these may point more to the weaknesses of pegging to one specific currency than about the weaknesses of pegging in general. This leads us to the specific case of
Southeast Asia. In principle, Thailand and the other regional countries were supposed to have adopted basket peg systems, with the US dollar, yen and other currencies receiving weights consistent with their respective significance in economic linkages with the Southeast Asian countries. However, in reality, the US dollar had the overwhelming weight *de facto* (Table 3), leading McKinnon (1990) and Ohno (1998) to refer to East Asia’s “dollar standard” and “soft dollar zone”, respectively. Significantly, the Japanese yen had a weight of less than 0.1 in the average Southeast Asian basket. This was despite the fact that Japan was the region’s largest export market along with the US and the region’s dominant import source (Table 4). Japan was also the region’s largest creditor and a substantial share of the bank lending (debt flow) and external debt (stock) to the region was denominated in yen (Tables 5 and 6)\(^2\). In other words, the Southeast Asian countries made the mistake of rigidly pegging to the US dollar rather than in pegging more flexibly to a basket of currencies\(^3\).

The remainder of this paper is organized as follows. The next two sections consider the limitations of the two corner solutions of flexible and irrevocably fixed regimes, respectively. This is followed by a discussion of a currency basket regime (an instance of an intermediate or a “middle of the road solution”) in section 3, highlighting

\(^2\) These in turn were intrinsically linked to the dominance of Japanese foreign direct investment (FDI) in the region. Indeed, the regional countries seemed to have viewed a stable and competitive exchange rate as key to remaining attractive as a destination for Japanese FDI (Goldberg and Klein, 1997). Bénassy-Quéré et al. (1999) also emphasize the importance of exchange rate stability for attracting FDI.

\(^3\) To be sure, Thailand and Malaysia had very rigid US dollar pegs, Indonesia pursued a crawling band arrangement (to compensate for inflation rate differentials between Indonesia and the US), while the Philippines was somewhere in between (Rajan, 1999).
the optimal weight of the yen in the regional currency baskets, as well as how such a basket might operate. We also discuss the issue of whether there is a case for a common/joint regional currency basket. The final section concludes the paper.

2. Why Not Floating Regimes?

The advantages of a free float are well known, including the ability to conduct an independent monetary policy\(^4\). In addition, notwithstanding the recent weakness of the Australian dollar\(^5\), its successful experiment with a floating arrangement (particularly in terms of withstanding the regional crisis) has often been cited as evidence of the “superiority” of such a regime and has been prescribed as panacea for other developing economies in the Asia and Pacific region. However, such an advocacy does not pay due consideration to the fact that countries with flexible regimes have experienced “excessive” volatility over the last few decades. It is admittedly difficult to define what exactly is meant by the term “excessive”. However, a reading of the literature on available empirical studies on exchange rates reveals that evidence of excessive exchange rate variability comes in a number of forms (Frankel, 1997). Among the most suggestive is that a number of surveys of foreign exchange (forex) market participants clearly indicate that short-term/high-frequency exchange rate movements are caused by “speculative” or “trend-following” elements rather than underlying fundamentals. Grenville and Gruen (1999) have stressed that the problem of destabilizing speculation

\(^4\) Of course, almost no country has maintained a completely free (or pure) float, the authorities intervening intermittently to smooth sharp market fluctuations. In other words “dirty floats” - i.e. forex market interventions without commitment to defend any specific parity - have been the norm. The US dollar probably comes closest to being a free float.

\(^5\) The Australian dollar has lost about one-third of its US dollar value between end 1996 and mid
(as opposed to the Friedmanite speculators) and consequent excessive exchange rate volatility might be exacerbated in developing countries for a number of reasons, making a flexible regime especially unviable/unsuitable to them. This is particularly so since thin markets, which exist in Southeast Asia and other developing countries (Table 7), imply that a few transactions can lead to extreme exchange rate fluctuations. Certainly, flexible exchange rates often appear to exhibit greater volatility in high frequency data than would be warranted by the underlying fundamentals. But why might such excessive volatility be of concern?

Recent studies that provide some evidence of a negative impact of exchange rate volatility/uncertainty on investment include Huizinga (1994) and Corbo and Cox (1995)\(^6\). To the extent that investment has a significant positive impact on economic growth, declining investment will have an enduring adverse effect on the quantity of real resources. Even in the absence of a negative effect on the level of investment, exchange rate variability will tend to have an adverse influence over the composition of investment since decisions will be based on disequilibrium prices. It has often been argued that firms and other agents involved in international transactions can undertake hedging operations to shield themselves against exchange rate movements. However, apart from the costs involved with such operations, Adler (1994) and Friberg (1996) have noted that perfect hedges may be very difficult to create technically (given acute revenue-cost uncertainties). Indeed, even if they could be created, they would entail non-negligible transaction costs, thus diverting scarce

\(^6\) Corbo and Cox (1995) and others also find that macroeconomic uncertainty in general has a deleterious impact on investment. Also see the broad literature survey by Serven (1997).
resources from “real” economic activity. This is especially true in the case of developing countries, in which rudimentary capital markets necessitate using cross-hedging techniques (rather than direct hedging), which invariably are far costlier. According to a 1992 survey of non-financial Fortune 500 corporations, while 85 percent of the respondents hedged, only 22 percent hedged *fully*. Not surprisingly, most of the respondents which did not hedge were smaller firms averaging US$2 billion in capital (Felix and Sau, 1996 and Felix, 1996). It is important to keep in mind that such small and medium sized enterprises dominate the economic landscape in developing countries.

Frankel and Wei (1998) have undertaken a cross-sectional study of bilateral trade. They find that bilateral exchange rate variability seems to have had a statistically and economically significant negative effect on trade between 1960 and 1985, though the impact - both economic and statistical - has been negligible between 1985 and 1990. Wei (1999) provides new empirical evidence suggesting that exchange rate volatility has had a detrimental effect on trade between pairs of countries to a much larger extent than suggested by previous studies. More generally, in a comprehensive survey of the literature on the impact of exchange rate volatility on trade flows by McKenzie (1999) concludes that the recent empirical studies seem to have “greater success in deriving a statistically significant relationship between volatility and trade” (p.100). Calvo and Reinhart (1999a), who review a more limited set of such studies, draw a similar conclusion. Flexible exchange rates may also be associated with currency misalignments, with accompanying costs in terms of resource misallocation and detrimental effects on economic growth. Cooper (1999) nicely summarizes the above discussion as follows:
The core problem is that for economies with imperfectly developed financial markets the exchange rate is the most important asset price, and it will be jerked around by changes in portfolio sentiments. But for an open economy the exchange rate is also the most important price in the market for goods and services. Jumping asset prices can badly disrupt the markets on which the economic well-being of the majority of residents depends….It is an open question whether a broad, diversified financial market based on the domestic currency can develop under floating exchange rates…The unwelcome conclusion that flows from this discussion is that free movements of capital and floating exchange rates are basically incompatible, except for large and diversified economies with well-developed and sophisticated financial markets (pp.111-2).

More specifically, Williamson (1999b, p.1) has concluded about floating regimes that it is not the option I would recommend, because of my doubts as to whether..(such) a regime…is consistent with the restoration of the sustained high rates of growth that were experienced by East Asia before the crisis.

Actions always speak louder than words. Accordingly, it is revealing to observe the post-crisis de facto exchange rate policies of the regional crisis-hit Southeast Asian countries. The Malaysian case is of course the most straightforward, the government having fixed the Malaysian ringitt (RM) relative to the US dollar on September 1, 1998 (at RM 3.80 per US$) while simultaneously imposing capital account restraints (Bird and Rajan, 2000). More interesting and complicated are the exchange rate choices of the other regional countries. It is commonly believed that Indonesia, Philippines and Thailand have maintained a float following their respective currency devaluations in mid and late 1997. Indeed, the IMF officially classifies them as floaters. In actuality though, after a short flirtation with floating, the regional currencies have been fairly stable vis-à-vis the US dollar (Chart 1). More evidence of this retreat to unilateral dollar pegs is seen by the rapid

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7 On balance, these earlier time-series studies seem to have found an insignificant effect of exchange rate uncertainty on trade (see the synopsis of the literature by Willett, 1986).

8 Also see Williamson (1997) and Bergsten et al. (1999). Hausmann (1999) comes out strongly
build up of foreign exchange reserves in the region since 1997 and efforts by these countries to further buttress available resources through regional initiatives such as the recently agreed-upon swap arrangement among East Asian countries (Southeast Asian countries plus Japan, Korea and China). This agreement – dubbed the “Chiangmai Initiative” – allows the countries to swap their own currencies for cash in a region-wide repurchase scheme. While the Malaysian capital controls have allowed for the simultaneous maintenance of monetary autonomy and a fixed regime (by breaking the “impossibility trilemma”), the other countries have depended on a combination of activist interest rate policy and forex market intervention to ensure relative exchange rate stability. Consequently, they have experienced sharp gyrations in monetary variables and international reserves (Calvo and Reinhart, 2000b). More generally, the authors have found that, in most cases, countries that proclaim themselves as having flexible exchange rates in fact have “soft pegs”, leading them to conclude that there is an acute and widespread “fear of floating” among developing and even some developed countries. In related work, they find that floating in developing countries in general has been limited to short time spans immediately following a currency crisis (as in the case of Southeast Asia) or hyperinflationary episodes (Calvo and Reinhart, 2000a and Reinhart, 2000). Thus, the official exchange rate classification by IMF (noted in Table 2), which suggests a sharp trend away from the intermediate arrangements (non-credible pegs) towards floating regimes in particular, is highly misleading.

3. Why Not Irrevocably Fixed Exchange Regimes?

against flexible regimes in Latin America.
In light of the problems (actual or perceived) of pursuing floating, there has been growing enthusiasm for the other corner solution of an irrevocably fixed regime. Such a hard peg signals greater commitment to rule out arbitrary exchange rate adjustments (i.e. escape clause cannot be invoked) as well as the authorities’ willingness to subordinate domestic policy objectives such as output and employment growth to the maintenance of the pegged exchange rate. We briefly touch on the potential problems of the three super fixes of a currency board arrangement, dollarization and a regional monetary union as exchange rate policy options for Southeast Asia.

3.1 Currency Boards

The durability of the Hong Kong and Argentine currency boards in the face of acute speculative pressures in the 1990s might have convinced some observers of the virtues of such a regime for Southeast Asia. In fact, the *Asian Monetary Monitor* (July-August, 1994, pp.1-10) did suggest such a regime for the regional countries and Indonesia toyed with the idea of this sort of arrangement during the early part of 1998⁹. Nevertheless, it is generally recognized that a currency board arrangement requires the satisfaction of a number of preconditions, including a strong and durable domestic financial system that is able to withstand possible interest rate hikes on a sustained basis at times when the domestic currency is under selling pressure. Failing this, “the country might simply convert currency-crisis vulnerability into banking-crisis vulnerability” (Frankel, 1999). To the extent that the banking systems in the regional countries have

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been decimated by the crisis, and the process of financial sector restructuring\textsuperscript{10} – while having progressed substantially – is far from complete, the currency board arrangement is infeasible over the near and medium-terms. This is particularly since the lender of last resort function of a central bank is eliminated by the introduction of a currency board, in turn implying the need for a strong, well-capitalized and well-supervised domestic financial system to be in place\textsuperscript{11}. There is also the question of whether the regional countries have the degree of labor market and internal flexibility as in the case of Hong Kong (and Singapore) to make such a super fix viable. In addition, it is revealing that both Hong Kong and Argentina themselves have, in recent times, been among the strongest proponents of moving towards alternative hard peg arrangements – dollarization in the case of Latin America, and East Asian monetary cooperation or at least coordination in the case of Hong Kong. Skeptics of currency board arrangements have interpreted this as the two economies looking for viable exit options from their respective currency boards.

3.2 Dollarization

In view of the limitations of the extremes of flexible and currency board arrangements, Eichengreen (1999) has concluded that a single, regional currency zone may be the most attractive option for small and open economies. Of course this could include an entire region adopting another country’s currency (like the US dollar) as its

\textsuperscript{10} For detailed descriptions of the financial restructuring programs in the region, see Balino et al. (1999).

\textsuperscript{11} Of course, this loss of a domestic lender of last resort may be partly compensated for through
own rather than establishing an entirely new one. Thus, Hausmann (1999) has argued that developing countries in Latin America should form a monetary union with the US, or more specifically, they should abandon their respective national currencies in favor of the US dollar (dollarization). While such a policy may well have merit in Latin America, the relatively low levels of dollarization in Southeast Asian (compared with Latin America), on the one hand, and the economically significant role played by Japan and the yen in Southeast and the larger East Asia, on the other, implies that dollarization (let alone euroization) is not a serious option for this region. This leaves us with the third hard peg option, viz. a common regional currency.

3.3 Currency Union

Having experienced the turbulence of the regional crisis against the backdrop of the successful introduction of a single European currency, leaders of the Association of Southeast Asian Nations (ASEAN) agreed to study the feasibility of a common ASEAN currency system. There has been much popular discussion in the region about the economic and political possibility and desirability of forming a larger Asian Monetary Union (AMU) akin to the European Monetary Union (EMU). From an economic standpoint, Eichengreen and Bayoumi (1999a,b) have concluded that East Asia may be as holding of excess reserves (over and above the domestic monetary base) as in the case of Hong Kong, or obtaining access to foreign credit line as in the case of Argentina (also see fn 23).

12 The relative merits of dollarization over a currency board are not discussed here (see Berg and Borensztein, 2000).

13 Announced as part of the latest ASEAN summit meeting in Hanoi and included in the Hanoi Plan of Action (Business Times, Singapore, December 15, 1998).

close to - or rather, as far away from - being an optimum currency area (OCA) as Western Europe\textsuperscript{15}. This conclusion is based on an OCA index that takes into account the costs associated with asymmetric region-wide shocks as well as the benefits from stabilizing exchange rates with trading partners. In any case, Frankel and Rose (1998) have noted that the OCA criteria may be at least partly endogenous, suggesting that some unions may be more justifiable \textit{ex post} rather than \textit{ex ante}.

However, there are at least two important differences between ASEAN/East Asia and Europe. First, any form of regional monetary union requires that there be compensating fiscal transfers from the richer to poorer states in the absence of sufficiently frictionless intraregional labor mobility. In the case of Europe, the extent of such transfers is quite significant in per capita terms of the poorer states, but fairly low in absolute terms as the richer states in Europe are much larger than the poorer ones (Eichengreen and Bayoumi, 1999a,b)\textsuperscript{16}. This is in contrast to ASEAN where the poorer regional members also happen to be the largest ones (Indonesia versus Singapore). Second, the European experience has emphasized the need for strong political will and consensus towards such a policy goal. - Indeed, some like Goodhart (1995) dispute the relevance of economic criteria at all, claiming that political consideration dominate formation of currency areas. - Such a political consensus, while possibly emerging in Southeast and the larger East Asian regions, is still far off from being universal (Bayoumi and Eichengreen, 1999). To be sure, “vision statements” by regional leaders for a currency union, while having

\textsuperscript{15} Similarly, Rockoff (2000) has emphasized that the US could be said to have been an OCA only around the 1930s.

\textsuperscript{16} The issue of division of fiscal transfers is of course a source of some tension with the expansion of the EMU to poorer Eastern European states.
becoming more common since the crisis, has not been backed up by any serious discussion on the type of institutional structures or formal mechanisms needed for such regional economic integration of monetary and exchange rate policies to be a success (such as an independent region-wide central bank, a system of inter-regional fiscal transfers, measures to ensure European-type macroeconomic convergence, and the like). Eichengreen and Bayoumi, who have done the most amount of serious work on the subject of the feasibility of a common currency in ASEAN and East Asia, deserve the final word on the matter. As they note (1999b),

there is little sign, comparable to the evidence which has existed in Europe for nearly 50 years, of a willingness to subordinate national prerogatives to some larger regional entity, There is no wider web of interlocking arrangements, as in the EU, which would be put at risk by a failure to follow through on promises of monetary and financial cooperation (p.11).

4. **The Intermediate Range Reconsidered: Currency Basket Regimes**

The preceding discussion suggests that the corner solutions may not be appropriate as practical short-to-medium term exchange rate options for the Southeast Asian countries. This certainly comes through in an examination of the revealed preferences of the countries concerned. The recent IMF report on exchange rate regimes has rightly cautioned that

(t)here is an important danger, however, in slipping back into de facto pegging of exchange rates against the U.S. dollar. While this may be sustainable for some considerable period, this may well eventually contribute to recreating the problems that led up to the Asian crisis.” (Mussa et al., 2000, p.59).

In view of this, in a world of *generalized floating among major currencies*, the most feasible and desirable alternative for developing countries in Southeast Asia in the
relatively near term may be a genuine currency basket arrangement\textsuperscript{17}. By pursuing such an arrangement, the countries may be able to cushion its vulnerability to fluctuations in the currencies of its major economic partners, thus limiting variations in the effective exchange rate. In this light, it is revealing that Singapore, which was least impacted by the crisis (despite being the most open economy), was the only Southeast Asian economy to have pursued a genuine basket peg (Table 3) (the Singapore case is described briefly in the next section).

There have been a number of recent studies attempting to measure optimal currency baskets in Southeast Asia. As discussed previously, there is good reason to believe that the Japanese yen was significantly underweight in the baskets of the crisis-hit Southeast Asian countries. This is confirmed by Table 8, which summarizes the estimates derived by the various studies of the yen’s weight in optimal baskets for the regional currencies. To be sure, a simple average of the various studies reveals the optimal weight of the Japanese yen to be in the range of between 0.3 and 0.4, the remainder being divided between the US dollar, euro and/or regional currencies (depending on the type of study). This is much higher than the \textit{de facto} pre-crisis weights of less than 0.1. If regional countries had given greater weight to the yen in their baskets pre-crisis, there would have been lower degrees of regional real exchange rate overvaluations following the nearly 50 percent nominal appreciation of the US dollar relative to the yen between June 1995 to April 1997 (which in turn led to a rise in the value of the regional currencies relative to

\textsuperscript{17} Of course, if the major currency (US dollar, Japanese yen and euro) are managed within certain target zones as sometimes suggested (by Fred Bergsten and others), there would be little difference between a single currency and multicurrency or basket currency arrangement.
the yen\(^{18}\). For instance, in the case of Thailand, which was the “crisis trigger country”, studies have suggested that the Thai baht’s pre-crisis real effective exchange rate (REER) was misaligned (“overvalued”) by anywhere between 11 and 30 percent relative to some measure of “equilibrium” real exchange rate (Montiel, 1999). There undoubtedly remains much work to be done on refining the methodologies and assumptions used in the determination of optimal currency baskets (for instance, see Rajan, 2000a and Williamson, 1999a). However, in the remainder of this section, we focus instead on the two other important policy issues, viz. the degree of fixity of the currency basket regime, and the possibility of a common or joint regional currency basket regime.

4.1 Rigid or Flexible?

A priori, there are at least four obvious reasons that underlie a preference for a greater degree of exchange rate flexibility (though not a flexible regime *per se* for reasons already highlighted). First, the greater the degree of flexibility of the exchange rate regime, the keener the incentives for agents to undertake appropriate forex risk management techniques in response to the higher element of exchange rate risk, while simultaneously reducing the extent of moral hazard which could lead to “excessive” unhedged external borrowing (World Bank, 1999). Second, the introduction of these transactions costs and exchange rate risks may also help moderate the extent of capital inflows, consequently dampening the intensity of boom and bust cycles. Third, small and open economies are much more susceptible to large external shocks, such as changes in foreign interest rates, terms of trade, regional contagion effects and the like. Received

\(^{18}\) McKinnon (1999) refers to the yen/US dollar exchange rate as the “loose cannon” in East Asia
theory tells us that a greater degree of exchange rate flexibility is called for in the presence of foreign or domestic real shocks. Fourth, banks tend to dominate the financial systems in the region and the credit transmission channel plays an important role in these countries (Rajan, 1999). Calvo (1999a) has shown that, ceteris paribus, the operation of this credit channel (which affects the IS curve directly and acts as a real shock)\textsuperscript{19} could tilt the balance in favor of greater exchange rate flexibility.

It is sometimes suggested that a rigid basket peg may operate as a nominal anchor for monetary policy and be a way of introducing some financial discipline domestically and breaking inflationary inertia (Edwards, 1993). Thus, a multicountry study of 136 countries over the period 1960-89 conducted by Ghosh et al. (1996) found inflation rates generally tend to be lower and more volatile under more flexible regimes (though economic growth is less volatile). An IMF (1997) study of developing countries in the mid-1990s reaches a broadly similar conclusion. However, apart from the previously noted problem of using official IMF statistics on exchange rate arrangements, the above conclusion is contested by Glick et al. (1995). They argue that policies of pegging exchange rates in East Asia were of little benefit in terms of acting as a counter-inflationary device, this goal having been attained primarily due to other factors such as relative autonomy of the monetary authorities. In their view, the use of exchange rates as nominal anchors may have acted as a liability as it prevented the necessary adjustments in response to external shocks. In addition, both theory and lessons of experience with

\textsuperscript{19} With the inclusion of the credit transmission channel in the textbook IS-LM framework, Bernanke and Blinder (1988) have renamed the IS curve the CC curve (“commodities and credit”). Spiegel (1995) considers an open economy extension of the Bernanke-Blinder framework (i.e. CC-LM-BP). Rajan and Sugema (1999) apply the framework to the East Asia.
nominal anchors have shown that such pegging loses credibility over time and induces
booms followed by inevitable busts and crises episodes.

**Monitoring Bands**

In view of the foregoing discussion, the suggestion by Dornbusch and Park (1999) and Williamson (1999b) for the maintenance of wide bands and, if need be, a crawl or slide to account for inflation differentials, seems to have strong rational, i.e. a so-called “band-basket-crawl” or BBC rule. Such a system may be a way of trading off the disciplinary and credibility benefits of a pegged regime with the flexibility of a floating one. Admittedly, the distinction between a peg and a band is somewhat arbitrary. However, a peg is generally considered to be a band in which the maximum movements permissible on either sides of the central parity are not more than 2.25 percent (Frankel, 1999 and Mussa et al., 2000). There remain other outstanding questions of significant importance such as to the band width (Williamson suggests a +/- 5 to 10 percent range); whether the bands should be “soft margins” or “soft buffers” such that the government may or may not intervene if the currency threatens to fall outside the pre-determined band (i.e. no absolute commitment); and whether the government should make explicit the values of the bands or this should be left more ambiguous as in the case of Singapore. To be sure, the Monetary Authority of Singapore (MAS) describes its exchange rate policy as follows:

(the) MAS manages the Singapore dollar against a basket of currencies of Singapore’s main trading partners and competitors. The basket is composed of the currencies of those countries that are the main sources of imported inflation and competition in export markets…The trade-weighted Singapore dollar is allowed to float within an undisclosed target band. The level and width of the band are reviewed periodically to ensure that they
are consistent with economics fundamentals and market conditions. The MAS intervenes in the foreign exchange market from time to time to ensure that movements of the..(Singapore dollar) exchange rate are orderly and consistent with the exchange rate policy\(^\text{20}\).

In effect therefore, the MAS seems to have adopted a “monitoring band” as opposed to a “crawling band” in which there is an obligation to defend the edges of the band. The obligation in the case of a monitoring band is "instead to avoid intervening within the band" (notwithstanding intermittent intervention to “smooth out” exchange rate fluctuations as opposed to trying to defend the currency) (Williamson, 1998).

To illustrate the degree of flexibility - some would say, fuzziness - of the Singapore exchange rate policy, the MAS allowed the Singapore dollar to depreciate by about 20 percent during the height of the East Asian crisis; while more recently, it is suspected to have intervened heavily in the market to prop up the Singapore dollar during recent bearishness against regional currencies following sharp falls in the NASDAQ (Straits Times, May 12, 2000). Admittedly, this sort of monitoring band may be interpreted by as some as being no different from a dirty floating regime. However, unlike a floating regime, with a monitoring band, the threat of possible intervention by the MAS may suffice to reduce speculative attacks. To be sure, there is no suggestion that such a band is a panacea against each and every speculative attack. Certainly it is not. As noted by the IMF report on exchange rate regimes:

\((e)\)specially in the case of emerging market countries with substantial involvement on global capital markets, exchange rate bands are vulnerable to speculative attacks just as currency pegs are…Bands typically function best as regimes of policy compromise when there is the readiness to adjust the central parity (or rate of crawl) in a timely manner in response to changing economic fundamentals (Mussa et al., 2000, p.49).

The point of a monitoring band (or a crawling band with soft edges) is that if the authorities decide that market pressures are overwhelming, they can choose to allow the rate to take the strain even if this involves the rate going outside the band (Williamson, 1998).

All of this seems to provide a rather convincing case for a monitoring band, though band width and rate of crawl would differ between countries based on individual circumstances and preferences. But what about the central parity? Should that be similar or different across the regional countries?

4.2 Common Currency Basket?

The IMF report on exchange rate regimes, which also recommends a currency basket regime for the regional economies, has noted that

(i) it should be feasible to take some account of common factors that are likely to influence these economies in a similar if not identical fashion. In particular, movements in major currency (especially dollar/yen) exchange rates might be taken into account by shifting, on a regional basis, from exchange rate policies that focus heavily on the U.S. dollar to more of a currency basket approach (Mussa et al., 2000, p.59).

The above suggestion belies significant ambiguity as to whether the IMF is in favor of a separate currency basket for individual countries in the region or a common region-wide basket. However, without getting into any details, the report then goes on to state that a “joint peg to a basket of major currencies...would arguably be a better choice than a single currency peg” (p.62)\(^{21}\). The case for a common regional basket currency could possibly be

\(^{21}\) Other proponents of a common currency basket include Dornbusch and Park (1999), Kusukawa (1999), Ohno (1998) and Williamson (1999a).
made by the fact that, at least as far as the yen’s weight is concerned, the computations of optimal pegs (based on a simple average of the studies) seem very close across countries in the region (Table 8)\textsuperscript{22}. In addition, Drazen (1998) has developed a contagion model which is based on countries being in an implicit or explicit regional currency agreement. According to his model, a devaluation by one country acts as a “wake up call” to investors in the sense that it leads them to question the commitment of other regional countries to maintain “club membership” by not devaluing, giving rise to a region-wide contagious crisis. This, along with the possibility of a competitive devaluation if each individual economy pursued its own individual currency basket, may be an additional reason for favoring a common basket. As noted by Williamson (1999, p.342), such a joint basket would “create an expectation that...variations in the exchange rates among the industrial countries would no longer have major impacts on the relative competitive positions of the East Asian countries.” However, as noted previously, each individual country must in turn distinctly decide the size of the band and the extent of flexibility depending on country circumstances, particularly since the speeds of recovery from the crisis and degrees of vulnerability to various shocks are quite varied (Mussa et al., 2000). Such a basket would also justify an expansion of the previously noted Chiangmai (swap) initiative to include - at least partial – pooling of reserves to create a regional credit facility and make transparent the hitherto implicit exchange rate policy coordination

\textsuperscript{22} It is important to stress that this conclusion is based on a simple average of the various studies. If one considered individual studies such as Ito et al. (1998) and Rajan (2000a), one finds that there is a significant difference between the weights computed for the Philippine peso, on the one hand, and the Thai baht and Indonesia rupiah, on the other.
through unilateral perusal of *de facto* US dollar pegs\(^{23}\). Alternatively, if such a region-wide basket regime is not politically tenable, each of the countries ought to initially formulate distinct currency baskets and gradually work towards a more uniform or common regional currency basket, though the financial market implications of the dynamics involved - including whether this should be a stated and transparent policy - remain unclear.

5. **Concluding Remarks**

The crisis in Southeast Asia has emphasized, among other things, the dangers of developing countries pegging their currencies to the US dollar (or any single currency for that matter). In response to this and other recent currency crises, the current mainstream thinking on the issue seem to be that developing countries should eschew intermediate exchange rate arrangements in favor of the corner solutions of either credible fixity or flexible rates. However, this prevailing sentiment is not without its skeptics. For instance, Bergsten et al. (1999, p.9) has made the important point that “(m)anaged floats do not have the clean, clear-cut allure of full institutional purity, but, in a world of second-bests, they are worth exploring.” In this spirit, we have argued in the case of Southeast Asia that while the soft US dollar pegs operated pre-crisis were sub-optimal, a more flexible peg

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\(^{23}\) Kusukawa (1999) recommends the establishment of a regional body to support the common basket system, possibly some kind of Asian Monetary Find (AMF). See Rajan (2000a) for a detailed discussion of the AMF. The importance of accumulating reserves that cover the existing stock of short term debt has been emphasized as being a key element of “self-protection” from currency crises (Feldstein, 1999). Contingent credit facilities from foreign banks including the internationalization of domestic banking systems, may be seen in the same light, and may in fact be a superior form of self protection (Kletzer and Mody, 2000). Chilean-type controls are also being increasingly viewed as an important element of this sort of self-protection.
against a diversified composite basket of currencies would have enabled the regional countries to better deal with the third currency phenomenon which may have contributed to the crisis. In other words, the problems in Southeast Asia have been more one of the nature of the peg (US dollar) rather than with pegging itself. More controversially, but in recognition of the close interlinkages and mutual real and monetary interdependencies that exist between countries in Southeast Asia (and possibly the larger East Asia), a case might even be made for a common regional basket, with the yen and US dollar each constituting around one-third to two fifths of the regional currency basket (the euro and other currencies making up the remainder). However, the currency basket arrangements should involve a “fairly high” element of flexibility rather than a single-minded defense of a particular rate. This may be best achieved by a variant on sliding parities and wider bands, the extent of which varying across the countries depending on individual circumstances and policy preferences.
References


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Allocation: Perspective on Recent Research”, *Journal of International Money and Finance*, 5, pp. s101-s112.


### Table 1

**Exchange Rate Regimes Ranged along the Continuum from Most Flexible to the Strongest Fixed-Rate Commitment**

<table>
<thead>
<tr>
<th>Type</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Flexible Corner</strong></td>
<td></td>
</tr>
<tr>
<td>• Free Floating</td>
<td><em>The absence of regular/systematic intervention in the forex market</em></td>
</tr>
<tr>
<td>• Managed/Dirty Float</td>
<td><em>The absence of a specific target for the exchange rate</em></td>
</tr>
<tr>
<td><strong>Intermediate Regimes</strong></td>
<td></td>
</tr>
<tr>
<td>• Target zone/band</td>
<td><em>A margin of fluctuation around some central rate</em></td>
</tr>
<tr>
<td>• Crawling peg</td>
<td><em>A pre-announced policy of devaluing “a bit” each week</em></td>
</tr>
<tr>
<td>• Adjustable peg</td>
<td><em>Fixing the exchange rate, but without any open-ended commitment to resist devaluation or revaluation in the presence of a large balance of payments deficit or surplus</em></td>
</tr>
<tr>
<td>• Basket peg</td>
<td><em>Fixing not to a single foreign currency but to a weighted average of other currencies</em></td>
</tr>
<tr>
<td><strong>Fixed Corner</strong></td>
<td></td>
</tr>
<tr>
<td>• Fixed peg</td>
<td><em>Commitment to undertake whatever forex market intervention needed to maintain prevailing rate, but not necessarily any institutional commitment to back the regime</em></td>
</tr>
<tr>
<td>• Currency Board</td>
<td><em>Three defining characteristics: fixing not just by policy but by law; backing increases in the monetary base one-for-one with forex reserves; and allowing balance of payments deficits to tighten monetary policy consequently adjusting spending automatically</em></td>
</tr>
<tr>
<td>• Monetary Union</td>
<td><em>The adoption of a foreign currency as legal tender. Includes the special case of official dollarization</em></td>
</tr>
</tbody>
</table>

Source: Adopted from Frankel (1999)
### Table 2

**IMF Exchange Rate Classification (%)**

<table>
<thead>
<tr>
<th>Year</th>
<th>Peg</th>
<th>Limited Flexibility</th>
<th>Managed</th>
<th>Flexible</th>
</tr>
</thead>
<tbody>
<tr>
<td>1970</td>
<td>97.2</td>
<td>0</td>
<td>0</td>
<td>2.8</td>
</tr>
<tr>
<td>1975</td>
<td>63.9</td>
<td>11.1</td>
<td>13.9</td>
<td>11.1</td>
</tr>
<tr>
<td>1980</td>
<td>38.9</td>
<td>5.6</td>
<td>47.2</td>
<td>8.3</td>
</tr>
<tr>
<td>1985</td>
<td>33.3</td>
<td>5.6</td>
<td>36.1</td>
<td>25.0</td>
</tr>
<tr>
<td>1990</td>
<td>19.4</td>
<td>13.9</td>
<td>30.6</td>
<td>36.1</td>
</tr>
<tr>
<td>1995</td>
<td>13.9</td>
<td>8.3</td>
<td>38.9</td>
<td>38.9</td>
</tr>
<tr>
<td>1999</td>
<td>11.1</td>
<td>11.1</td>
<td>33.3</td>
<td>44.5</td>
</tr>
</tbody>
</table>

Note: a) sample based 154 exchange rate arrangements
Source: Calvo and Reinhart (2000a)

### Table 3

**Currency Weights of Southeast Asian Countries, 1979-1995**

<table>
<thead>
<tr>
<th>Currency</th>
<th>Frankel and Wei (1994)a</th>
<th>Kwan (1995)b</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>US dollar</td>
<td>Japanese yen</td>
</tr>
<tr>
<td>Indonesian rupiah</td>
<td>0.95</td>
<td>0.16</td>
</tr>
<tr>
<td>Malaysian ringgit</td>
<td>0.78</td>
<td>0.07</td>
</tr>
<tr>
<td>Philippine peso</td>
<td>1.07</td>
<td>-0.01</td>
</tr>
<tr>
<td>Singapore dollar</td>
<td>0.75</td>
<td>0.13</td>
</tr>
<tr>
<td>Thai baht</td>
<td>0.91</td>
<td>0.05</td>
</tr>
<tr>
<td>Simple Average</td>
<td>0.89</td>
<td>0.08</td>
</tr>
</tbody>
</table>

Notes: a) Based on weekly movements for the period January 1979 to May 1992
b) Based on weekly movements for the period January 1991 to May 1995
### Table 4

**Southeast Asian Export and Imports, by Country and region, 1996 (% share)**

<table>
<thead>
<tr>
<th></th>
<th>Indonesia</th>
<th>Malaysia</th>
<th>Philippines</th>
<th>Thailand</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Exports to:</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>US</td>
<td>16.0</td>
<td>18.2</td>
<td>34.1</td>
<td>18.0</td>
<td>19.2</td>
</tr>
<tr>
<td>Japan</td>
<td>27.8</td>
<td>13.4</td>
<td>18.0</td>
<td>16.8</td>
<td>18.3</td>
</tr>
<tr>
<td>Rest of Asia</td>
<td>25.4</td>
<td>46.8</td>
<td>25.9</td>
<td>36.8</td>
<td>36.8</td>
</tr>
<tr>
<td><strong>Imports from:</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>US</td>
<td>10.3</td>
<td>15.5</td>
<td>18.3</td>
<td>12.6</td>
<td>14.0</td>
</tr>
<tr>
<td>Japan</td>
<td>23.6</td>
<td>24.5</td>
<td>20.3</td>
<td>27.8</td>
<td>24.8</td>
</tr>
<tr>
<td>Rest of Asia</td>
<td>27.7</td>
<td>34.6</td>
<td>27.8</td>
<td>28.2</td>
<td>30.2</td>
</tr>
<tr>
<td><strong>Trade Balance</strong>:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>US</td>
<td>5.4</td>
<td>7.9</td>
<td>29.3</td>
<td>4.1</td>
<td>10.1</td>
</tr>
<tr>
<td>Japan</td>
<td>-30.7</td>
<td>-29.4</td>
<td>16.2</td>
<td>-37.1</td>
<td>-20.4</td>
</tr>
<tr>
<td>Rest of Asia</td>
<td>-28.4</td>
<td>14.9</td>
<td>3.8</td>
<td>-0.0</td>
<td>4.2</td>
</tr>
</tbody>
</table>

Note:  
- a) Share of imports plus exports; - implies deficit  
Source: Calculated from IMF, Direction of Trade Statistics

### Table 5

**Nationality of Banks Providing Loans to Crisis-hit Southeast Asian Countries, 1997 (% share)**

<table>
<thead>
<tr>
<th>From</th>
<th>To</th>
<th>Japan</th>
<th>US</th>
<th>Europe</th>
<th>Others</th>
</tr>
</thead>
<tbody>
<tr>
<td>Indonesia</td>
<td>38</td>
<td>6</td>
<td>44</td>
<td>12</td>
<td></td>
</tr>
<tr>
<td>Malaysia</td>
<td>34</td>
<td>5</td>
<td>47</td>
<td>14</td>
<td></td>
</tr>
<tr>
<td>Philippines</td>
<td>13</td>
<td>17</td>
<td>60</td>
<td>10</td>
<td></td>
</tr>
<tr>
<td>Thailand</td>
<td>56</td>
<td>4</td>
<td>33</td>
<td>7</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>33</td>
<td>8</td>
<td>38</td>
<td>21</td>
<td></td>
</tr>
</tbody>
</table>

Note:  
- a) Mainly Asia (Hong Kong in particular)  
Source: BIS, Maturity, Sectoral and Nationality Distribution of International Bank Lending
Table 6
Currency Composition of Long-Term Debt to East Asia and the Pacific, 1997 (% share)

<table>
<thead>
<tr>
<th>Currency</th>
<th>Share</th>
</tr>
</thead>
<tbody>
<tr>
<td>Deutsche mark</td>
<td>1.8</td>
</tr>
<tr>
<td>French franc</td>
<td>1.1</td>
</tr>
<tr>
<td>Japanese yen</td>
<td>20.1</td>
</tr>
<tr>
<td>Pound sterling</td>
<td>0.5</td>
</tr>
<tr>
<td>US dollars</td>
<td>57.8</td>
</tr>
<tr>
<td>Multiple currency</td>
<td>13.1</td>
</tr>
<tr>
<td>All other currencies</td>
<td>3.1</td>
</tr>
</tbody>
</table>


Table 7
Forex Market Activity ($ Billions): Southeast Asia versus Industrialized Countries

<table>
<thead>
<tr>
<th>Country</th>
<th>GDP(^a)</th>
<th>Average Daily Turnover of Forex Activity(^b)</th>
<th>Relative Size(^c) (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>East Asia</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Indonesia</td>
<td>214.6</td>
<td>1.5</td>
<td>0.7</td>
</tr>
<tr>
<td>Malaysia</td>
<td>97.9</td>
<td>1.1</td>
<td>1.1</td>
</tr>
<tr>
<td>Thailand</td>
<td>153.9</td>
<td>3.0</td>
<td>2.0</td>
</tr>
<tr>
<td>Advanced Countries</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>United States</td>
<td>1288.4</td>
<td>637.6</td>
<td>49.5</td>
</tr>
<tr>
<td>United Kingdom</td>
<td>2102.6</td>
<td>94.3</td>
<td>4.5</td>
</tr>
<tr>
<td>Germany</td>
<td>4192.3</td>
<td>148.6</td>
<td>3.5</td>
</tr>
<tr>
<td>Japan</td>
<td>254.9</td>
<td>81.7</td>
<td>15.5</td>
</tr>
<tr>
<td>Switzerland</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Notes: \(^a\) billions $, 1997 data; \(^b\) billions $, as of April 1998; \(^c\) average daily turnover-to-GDP ratio

Source: Min and McDonald (1999)
Table 8
Comparing Optimal Weights of the Japanese yen in Southeast Asian Currency Baskets

<table>
<thead>
<tr>
<th></th>
<th>Indonesia rupiah</th>
<th>Malaysia ringitt</th>
<th>Philippine peso</th>
<th>Thai baht</th>
</tr>
</thead>
<tbody>
<tr>
<td>B-Q (1999)a</td>
<td>0.30</td>
<td>0.21</td>
<td>0.23</td>
<td>0.29</td>
</tr>
<tr>
<td>Ito et al. (1998)b</td>
<td>0.56</td>
<td>n.a</td>
<td>0.72</td>
<td>0.52</td>
</tr>
<tr>
<td>Eiji (1999)</td>
<td>0.45</td>
<td>0.40</td>
<td>0.40</td>
<td>0.40</td>
</tr>
<tr>
<td>Kusukawa (1999)b</td>
<td>0.39</td>
<td>0.36</td>
<td>0.31</td>
<td>0.40</td>
</tr>
<tr>
<td>Kusukawa (1999)b,c</td>
<td>0.32</td>
<td>0.32</td>
<td>0.32</td>
<td>0.32</td>
</tr>
<tr>
<td>Williamson (1999)c</td>
<td>0.33</td>
<td>0.33</td>
<td>0.33</td>
<td>0.33</td>
</tr>
<tr>
<td>Rajan (2000a)b</td>
<td>0.59</td>
<td>0.46</td>
<td>0.35</td>
<td>0.59</td>
</tr>
<tr>
<td>Simple Average</td>
<td>0.42</td>
<td>0.35</td>
<td>0.38</td>
<td>0.41</td>
</tr>
</tbody>
</table>

Notes:  
a) Based on $\psi = 0.5$ using the Nash solution (see eq. 1 in text)  
b) Based on the simple average of stated ranges  
c) Based on a common basket which include the four Southeast Asian countries plus  
Singapore, South Korea, Singapore, P.R.C. China, Hong Kong and Taiwan

Source: Compiled by author
Chart 1
Bilateral Exchange Rates Relative to US Dollar (Jan-97 = 100)

Source: CEIC Database
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