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# INFLATION TARGETING ARRANGEMENTS IN ASIA: EXPLORING THE ROLE OF THE EXCHANGE RATE

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# INFLATION TARGETING ARRANGEMENTS IN ASIA: EXPLORING THE ROLE OF THE EXCHANGE RATE

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# INFLATION TARGETING ARRANGEMENTS IN ASIA: EXPLORING THE ROLE OF THE EXCHANGE RATE


## Abstract

Since the Asian crisis it has been recognized that exchange rate and monetary policy strategies must involve a "fairly high" element of flexibility rather than a single-minded defense of a particular rate. One way this flexibility might be introduced is by a country adopting an open economy inflation targeting arrangement. This particular policy regime has been officially implemented in several Asian countries in recent years, but the normative implications of inflation targeting appear at times to be at odds with the requirements regarding exchange rate flexibility. This paper presents an analysis of some of the issues relevant to Asian central banks implementing an inflation targeting arrangement with specific focus on the role of the exchange rate.



*Key words:* *Asia, exchange rate regime, inflation targeting arrangement, fear of floating, monetary policy rule, pass through*

## 1. Introduction

An immediate lesson that many observers appear to have drawn from recent financial crises in emerging market economies in the 1990s is that the only viable exchange rate option boils down to one between flexibility, on the one hand, and "credible pegging", on the other. According to this view, emerging economies have to gravitate to these two extremes. Any currency arrangement that lies in between these polar extremes or corners (i.e. those in the "middle") is viewed as being inherently unstable and crisis-prone. However, there are many instances where intermediate regimes might well be "more appropriate" than corner solutions (for instance, see Fischer, 2001, Frankel, 1999 and Willett, 2002). Indeed, the supposed bipolar view of exchange rates ought to be presented as a choice between a hard peg versus a "more flexible regime" rather than a flexible exchange rate regime *per se*.[1] The latter option implies the absence of any explicit exchange rate target, i.e. intervention should not be framed primarily in terms of defending a particular exchange rate target. Such targets inevitably tempt speculators by offering them the infamous one-way option.

Exchange rate and monetary policy strategies must therefore involve a "fairly high" element of flexibility rather than a single-minded defense of a particular rate. One way this flexibility might be achieved is via a band-basket-crawl or BBC regime,

[1] As Fischer (2001) notes:

> proponents of what is now known as the bipolar view...probably have exaggerated their point for dramatic effect. The right statement is that *for countries open to international capital flows*: (i) pegs are not sustainable unless they are very hard indeed; but (ii) that a wide variety of flexible rate arrangements are possible; and (iii) that it is to be expected that policy in most countries will not be indifferent to exchange rate movements. To put the point graphically, if exchange rate arrangements lie along a line connecting free floating on the left with currency boards, dollarization or currency union on the right, the intent was not to remove everything but the corners, but rather to pronounce as unsustainable a segment of that line representing a variety of soft pegging exchange rate arrangements. This formulation accommodates all three of the above positions. For countries open to capital flows, it leaves open a wide range of arrangements running from free floating to a variety of crawling bands with wide ranges, and then very hard pegs sustained by a highly credible policy commitment, notably currency boards and the abandonment of a national currency.

whereby a country loosely targets its trade-weighted or effective exchange rate.[2] Another possible manner of introducing greater exchange rate flexibility is for a country to adopt an open economy inflation targeting arrangement.[3]

## 2. What is an Inflation Targeting Arrangement?

Buoyed by the apparent success of inflation targeting (IT) in industrial countries in the early 1990s, it has been advocated by the IMF and others as a viable policy option for emerging economies in Asia and elsewhere.[4] Since the Asian financial debacle of 1997-98, four of the five crisis-hit countries -- Korea, Indonesia, Thailand and the Philippines -- have instituted monetary policy arrangements fashioned around an inflation objective.[5] Each of these countries has passed legal and institutional legislations supporting their respective inflation targeting arrangements (Table 1).[6]

What exactly is inflation targeting? While definitions vary in the literature, the following definition by Mishkin (2000) is consistent with the consensus:

> Inflation targeting is a monetary policy strategy that encompasses five main elements: 1) the public announcement of medium-term numerical targets for inflation; 2) an institutional commitment to price stability as the primary goal of monetary policy, to which other goals are subordinated; 3) an information inclusive strategy in which many variables, and not just monetary aggregates or the exchange rate, are used for deciding the setting of policy instruments; 4) increased transparency of the monetary policy strategy through communication with the public and the markets about the plans, objectives, and decisions of the monetary authorities; and 5) increased accountability

[2] See Rajan and Siregar (2002, 2003) for an analysis and discussion of Singapore's exchange rate policy.

[3] The topic of currency basket arrangements for Asia has been extensively dealt with elsewhere. For instance, see Bird and Rajan (2002) and Rajan (2002).

[4] For a discussion of inflation targeting during IMF structural adjustment programs, see Blejer et al. (2001).

[5] Malaysia shifted to a rigid US dollar peg in September 1998 but moved to a rather non-transparent managed float in July 2005.

[6] The revised Bank of Korea Act was passed in December 1997 (and revised in April 1998), the new bank of Indonesia Act was passed in May 1999 and the Bank of Thailand Act was passed in May 2000 (Table 1).

> of the central bank for attaining its inflation objectives. The list should clarify one crucial point about inflation targeting: it entails *much more* than a public announcement of numerical targets for inflation for the year ahead. This is important in the context of emerging markets' countries because many of them routinely reported numerical inflation targets or objectives as part of the government's economic plan for the coming year, and yet their monetary policy strategy should not be characterized as inflation targeting, which requires the other four elements for it to be sustainable over the medium term (pp.10-7).

As apparent from Table 1, important features of an inflation target arrangement include the definition of what type of inflation is being targeting, the inflation target range, the use of exclusion clauses or caveats (i.e. under what circumstances the central bank is able to overshoot its target), and the target horizon. All of this information needs to be publicly available and fully transparent.

Inflation targeting is conducted in conjunction with a monetary policy rule (MPR). In general terms, the MPR is one element of a strategy employed by the central bank as part of its overall monetary policy. The MPR specifies how the instrument of monetary policy is to be changed given the characteristics of the macro economy and the policy objectives of the central bank. The MPR implicitly assumes that the instrument of monetary policy will always react strongly to inflation (or some forecast of future inflation). MPRs and inflation targets are different elements of a general monetary policy strategy. The MPR provides a guide to the policymaker as to how to manipulate the instrument of monetary policy; the inflation target simply makes a statement of what the instrument is being ultimately used for.

More formally, the degree to which a central bank is committed to an inflation targeting arrangement can best be assessed by a central bank loss function. Consider the following:

$$L_t = E_t \delta(\lambda_1 \pi_{t+1}^2 + \lambda_2 y_{t+1}^2) \qquad (1)$$

*where*: $\pi$ is the domestic inflation rate gap (deviation between forecasted minus target) and *y* refers to the output gap (deviation of forecasted output from its natural rate. *E* is the expectations operator and $\delta$ is the discount rate. The policy parameters, i.e. those specifying the precise nature of the monetary policy system, $\lambda_1$ and $\lambda_2$ are the weights placed on estimated inflation and output gaps. The ratio of the two parameters provides a summary of the nature of the policy regime. For instance, if $\lambda_1 = 1$ and $\lambda_2 = 0.5$, the central bank can be said to be twice as concerned about inflation than output. In the literature, a situation like this ($\lambda_1 > \lambda_2 > 0$) is referred to as "flexible" inflation targeting. Output is secondary to the inflation target, but the weight on the output objective prevents excessive volatility in output and delays the attainment of the inflation target. If $\lambda_1 > 0$ and $\lambda_2 = 0$, it is referred to as strict inflation targeting where the inflation target is achieved at any cost. In section 4 below, we re-examine strict versus flexible inflation targeting and take a broader view of the issue.

## 3. The Role of Exchange Rate under Inflation Targeting

### 3.1 A Simple Model

Conventionally an inflation targeting arrangement ought to be accompanied by a flexible exchange rate, with the interest rate used as the monetary policy instrument. It is generally recognized that for small and open economies in Asia and elsewhere, fluctuations in the exchange rate can have significant and direct impact on the domestic economy. In particular, assuming a significant degree of pass through from exchange rate changes to domestic inflation, it has sometimes been argued that exchange rate fluctuations ought to be explicitly incorporated in any MPR. We can evaluate this and other issues with the aid of the following simple model[7]:

[7] The model is an open economy IS-LM type setup as in Ball (1999, 2001) and a simplification of the model in Svensson (2000).

$$y_{t+1} = \beta_1 y_t - \beta_2 r_t - \beta_3 e_t + \varepsilon_{t+1} \quad (2)$$

$$\pi_{t+1} = \pi_t + \alpha_1 y_t - \alpha_2 \Delta e_t + \eta_{t+1} \quad (3)$$

$$e_t = \theta r_t + \upsilon_t \quad (4)$$

*where*: *r* is the real interest rate, ***e*** is the real exchange rate (increase = appreciation of domestic currency), $\varepsilon$, $\mu$ and $\nu$ represent demand, inflation and (real) exchange rate shocks respectively. Eq. 2 is an open economy IS curve where output is determined by its own lag, the real interest rate (the traditional transmitter of policy in a closed economy inflation targeting system) and the real exchange rate. Eq. 3 is a conventional Phillips relation exhibiting inflation persistence and where output and the real exchange rate explain the rate of inflation next period. To be more specific about the exchange rate transmission channel in Eqs. 2 and 3, a fall in ***e*** (real depreciation) leads to higher inflation domestically (pass through) as well as boosts net exports and thus output.[8] Eq. 4 is a reduced form relationship between the real exchange rate and the real interest rate.

We can then specify a loss function similar to Eq. 1 where the central bank positions its policy instrument to minimize inflation and output deviations next period.[9] Given the quadratic nature of Eq. 1 and the linear constraints (Eqs. 2-4), as is convention, we can expect the *optimal* MPR to also be linear and take the following form:

$$r_t = f_\pi \pi_t + f_y y_t - f_\upsilon \upsilon_t + f_e e_{t-1} \quad (5)$$

[8] We abstract from the possibility of contractionary devaluation. See Cavoli and Rajan (2005b) and Bird and Rajan (2004).

[9] It is widely held in the inflation targeting literature that the target will be met in two periods. However, in open economies, the inclusion of the exchange rate in the model (Eq. 2-4) will result in the target being potentially met in one period. This accounts for the specification of the loss function in Eq. 1.

Substituting Eqs. 4 into Eqs. 2 and 3 and re-substituting the resulting equations into Eq. 1 and differentiating with respect to $r_t$ allows us to derive the values of $f_\pi$, $f_y$, $f_u$ and $f_e$ in Eq. 5 as follows:

$$f_\pi = \frac{\lambda_1 \alpha_2 \theta}{\lambda_1 \alpha_2^2 \theta^2 + \lambda_2 A^2} \tag{6}$$

$$f_y = \frac{\lambda_1 \alpha_1 \alpha_2 \theta + \lambda_2 A \beta_1}{\lambda_1 \alpha_2^2 \theta^2 + \lambda_2 A^2} \tag{7}$$

$$f_v = \frac{\lambda_1 \alpha_2^2 \theta + \lambda_2 A \beta_3}{\lambda_1 \alpha_2^2 \theta^2 + \lambda_2 A^2} \tag{8}$$

$$f_e = \frac{\lambda_1 \alpha_2^2 \theta}{\lambda_1 \alpha_2^2 \theta^2 + \lambda_2 A^2} \tag{9}$$

*where*: $A = \beta + \gamma\theta$ .

### 3.2 Fear of Floating

Several observations can be made about the role of the exchange rate. As long as the central bank is committed to pursuing monetary policy as specified by the loss function in Eq. 1 (i.e. $\lambda_1$ and $\lambda_2 > 0$), the optimal rule will suggest that the instrument of policy will always react in some way to the real exchange rate even if the central bank is a strict output targeter. The key point to recognize here is that it is optimal for the central bank to respond to exchange rate movements insofar as any exchange rate shock affects its ability to reach its target. Hence, for an inflation targeter the central bank will react to exchange rate shocks in the process of achieving the inflation target. This particular behavior by the central bank is misinterpreted as exhibiting “fear of floating” (Eichengreen, 2001). Nonetheless, by

observing the composition of $f_v$ in Eq. 8, it is clear that the reaction of the instrument to the exchange rate is not related to fear of floating. Why?

First, if a central bank were to exhibit a fear of floating, it would follow that the exchange rate (real or nominal) would appear in the loss function. We know from Eq. 1 that it does not. Second, given that there is no fear of floating coefficient in the loss function, obviously, one will not appear in the optimal rule. From Eq. 8 we see that $f_v$ is made up of policy preferences governing inflation and/or output and any feedback from the structural model; there is no fear of floating per se.

However, in open economies where the proportion of traded to non-traded goods is relatively high, the use of domestic inflation may not sufficient represent price changes of the consumption basket. Instead, the central bank might choose to undertake targeting CPI inflation. Consider the following simple definition of inflation:

$$\pi_t^c = \omega\pi_t^{tr} + (1-\omega)\pi_t \tag{10}$$

*where*: $\pi^c$ is CPI inflation, $\pi^c$ is traded goods inflation and $\pi$ is domestic inflation as in Eq. 3 above. The parameter $\omega$ represents the degree of trade openness by reflecting the proportion of traded goods in the domestic economy consumption basket. Traded goods prices are highly dependent on changes in the exchange rate.

$$\pi_t^{tr} = -\rho\Delta e_t \tag{11}$$

*where*: $\rho$ captures the degree of pass-through to traded goods prices.

If the central bank targets domestic inflation then the loss function would be as given by Eq. 1. However, if the central bank wishes to target CPI inflation the loss function becomes:

$$L_t = E_t\delta\{\lambda_{1*}(\pi^c_{t+1})^2 + \lambda_2 y^2_{t+1}\}$$

$$= E_t\delta\{\lambda_{1*}[\omega\rho\Delta e_{t+1} + (1-\omega)\pi_{t+1}]^2 + \lambda_2 y^2_{t+1}\} \quad (12)$$

*where*: $\lambda_{1*}$ represents the central bank preference for targeting CPI inflation.

From Eq. 12, we can see that a CPI targeting central bank can exhibit some additional policy preference to managing exchange rate volatility and that the parameters representing openness ($\omega$) and pass-through ($\rho$) feature significantly in the loss function. By making the requisite substitutions and repeating the process used to derive Eqs. 6 – 9, one can derive the optimal rule for CPI inflation targeting as follows:

$$f^c_\pi = \frac{\lambda_{1*}M(1-\omega)}{\lambda_{1*}M^2 + \lambda_2 A^2} \quad (13)$$

$$f^c_y = \frac{\lambda_{1*}M(1-\omega)\alpha_1 + \lambda_2 A\beta_1}{\lambda_{1*}M^2 + \lambda_2 A^2} \quad (14)$$

$$f^c_v = \frac{\lambda_{1*}M(\omega\rho + (1-\omega)\alpha_2 + \lambda_2 A\beta_3}{\lambda_{1*}M^2 + \lambda_2 A^2} \quad (15)$$

$$f^c_e = \frac{\lambda_{1*}M(1-\omega)\alpha_2}{\lambda_{1*}M^2 + \lambda_2 A^2} \quad (16)$$

*where*: $M = (\omega\rho\theta + (1-\omega)\alpha_2)$. Eqs. 13-15 are the optimal rule coefficients ($f^c$) for CPI inflation targeting. It is apparent that the extent with which exchange rate movements permeate through the domestic economy (as captured by $\omega$ and $\rho$) is now *explicitly* captured as part of a central bank's optimal monetary policy.

### 3.3 Concerns with Fear of Floating Behavior

Despite the ways that the exchange rate can be incorporated into an open economy inflation targeting arrangement, there remain significant concerns about doing so.

First, if one attempts to control the inflationary effects of exchange rate changes, that effectively implies raising interest rates during periods of exchange rate weakness to and vice versa during periods of exchange rate strength, The concern is that responding too heavily and frequently to currency movements in the short-term could risk transforming the flexible inflation target to a *de facto* soft currency peg which in turn tends to be crisis-prone. This observation may be especially pertinent to some Asian economies where there are concerns of a reversion to exchange rate based monetary policy regime.[10] Second, insofar as interest rate changes have a lagged effect on the economy on the one hand, and pass through from exchange rates tends to be fairly immediate on the other, the central bank will have to forecast short-term exchange rate movements. This is near impossible to do on a consistent basis.

One way to partially overcome the problem of exchange rate fluctuations on inflation is for the central bank to focus on "core" rather than "headline" inflation (the former being headline inflation minus food and energy prices).[11] Referring to Table 1, one sees that a number of the Asian central banks pursuing inflation targeting arrangements are in fact targeting core inflation. The benefit of doing so is that any exchange rate fluctuations that directly impact the imported price of foodstuffs and energy will be excluded. While targeting of core inflation does not completely offset the impact of exchange rate fluctuations on all domestic prices (as a country could be importing other goods and there could be a seeping through of non-core price

[10] This issue is the focus of Cavoli and Rajan (2005a).

[11] For a more detailed discussion of general issues on core inflation in the context of the Philippines and other Asian countries, see Monetary Stability Sector, Bangko Sentral ng Pilipinas (2005). "Frequently Asked Questions on Core Inflation", www.bsp.gov.ph/downloads/2005/faq/inflation.pdf .

inflation into overall inflation), it has been seen as a way of addressing the exchange rate debate for small and open economies.[12]

While targeting core inflation helps to loosen the tie between exchange rates and domestic monetary policy, there is a more basic concern with exchange rate movements on the monetary transmission mechanism, viz. what if pass through is incomplete such that nominal exchange rate changes do not immediately translate into real exchange rate changes? If this happens, it implies that the real exchange rate will not revert to its original value (i.e. purchasing power parity will not hold), which in turn could impact domestic output, growth and inflation over time. In other words, a flexible exchange rate could lead to persistent exchange rate misalignment which could be sustained over prolonged periods. Insofar as these exchange rate misalignments have sustained impact on the real sector, ought not the central bank explicitly incorporate estimated exchange rate misalignments in their policy rule even if the focus is on core inflation? While there may be logic for this in principle, in practice such a policy is hard to implement effectively as it basically requires that that the central bank is able to estimate equilibrium real exchange rates, something which is not easy to do so, especially given that the equilibrium real exchange rate could fluctuate over time.[13] Does this imply a complete neglect of persistent exchange rate or other asset price fluctuations under an inflation targeting arrangement?[14] We turn

[12] While core inflation has the advantage of stripping out components that may cause idiosyncratic price changes arising from supply shocks, a problem targeting core inflation is that it is much harder to communicate the logic of this target to the general public. The public is generally not aware of the meaning of core inflation, and if there is a wide gap between core and headline inflation, the central bank's anti-inflationary credibility might be affected.

[13] For instance, for a fast growing open economy, the productivity growth in the tradables sector generally outpaces the nontradables sector, (so-called "Balassa-Samuelson effect"), thus suggesting an appreciation of the country's equilibrium real exchange rate. For discussions of the concept of equilibrium real exchange rates, see the collection of papers in Hinkle and Montiel, (1999).

[14] For elaborated discussions of the role of exchange rates in inflation targeting arrangements, see Eichengreen (2001), Sgherri (2005), and Taylor (2001). For a more formal analysis of the role of exchange rates in central bank's objective function, see Hammermann (2003). These issues are explored more formally in Cavoli and Rajan (2005b).

to this issue next.

## 4. Strict versus Flexible Targeting

There is a school of thought that argues that as long as the country's inflation outlook remains consistent with the medium term inflation target range (i.e. the policy reference period), the central bank has space to use its judgment to judiciously to meet other objectives and respond effectively to various shocks and "obvious" asset price misalignments in the interim.[15] This suggests a degree of discretion in being able to prick "asset price "bubbles" including exchange rate and housing ones (or better still, be preemptive so as to prevent bubbles from forming in the first instance). However, multiple targeting (over and above inflation and output) is not without its drawbacks.

One, multiplicity of objectives/flexibility in implementing the inflation target invariably complicates the communication strategy of the central bank's monetary policy. As Fredric Mishkin (2002) notes:

> The KISS principle ("Keep It Simple Stupid") suggests that monetary policy should be articulated in as simple way as possible. The beauty of inflation target regimes is that by focusing on one objective – inflation – communication is fairly straightforward (p14).

Two, when monetary authorities explain their monetary policy actions by referring to the need to ensure output or exchange rate stability, "the political debate about monetary policy is likely to focus on short-run issues", (Mishkin, 2002, p.11) be it job creation, exchange rate stability, or even asset price stability. This in turn may "obscure the transparency of monetary policy and make it less likely that the public will support a monetary policy that focuses on long-run considerations" (Mishkin, 2002, p.14) and may worsen the output-inflation tradeoff.

To be sure, there is a significant difference between keeping an eye on asset price changes as offering information on underlying economy versus explicitly

[15] One might call this the "Australian view" of inflation targeting. See Debelle (2001).

targeting them. The former is rather uncontroversial; the latter is not.[16] There is a concern that central banks are not able to estimate bubbles or misalignments (wouldn't they be rich if they could?), and there could also be instances where various asset prices give conflicting signals.[17] Ben Bernanke of the Federal Reserve has argued strongly against the central bank attempting to respond to asset price bubbles. As he notes:

> If we could accurately and painlessly rid asset markets of bubbles, of course we would want to do so. But as a practical matter, this is easier said than done, particularly if we intend to use monetary policy as the instrument, for two main reasons. First, the Fed cannot reliably identify bubbles in asset prices. Second, even if it could identify bubbles, monetary policy is far too blunt a tool for effective use against them….(A)s a society, we would like to find ways to mitigate the potential instabilities associated with asset-price booms and busts. Monetary policy is not a useful tool for achieving this objective, however. Even putting aside the great difficulty of identifying bubbles in asset prices, monetary policy cannot be directed finely enough to guide asset prices without risking severe collateral damage to the economy. A far better approach, I believe, is to use micro-level policies to reduce the incidence of bubbles and to protect the financial system against their effects. I have already mentioned a variety of possible measures, including supervisory action to ensure capital adequacy in the banking system, stress testing of portfolios, increased transparency in accounting and disclosure practices, improved financial literacy, greater care in the process of financial liberalization, and a willingness to play the role of lender of last resort when needed. (Bernanke, 2002, p 3 and 8)[18]

Even if there is a case for the central bank to respond to signs of obvious bubbles, it probably cannot be incorporated in an explicit rule. If the monetary

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[16] Similarly, many central banks in Asia and elsewhere also keep an eye on the so-called "Monetary Conditions Index" or MCI which is a weighted average of interest rate and exchange rate and this is not controversial. If they attempt to explicitly target the MCI it would be much more controversial. For discussion of the MCI in the context of Hong Kong, see Hong Kong Monetary Authority (HKMA) (2000).

[17] Also see Bean (2003). That said, not everyone is convinced by such concerns and offer the counterargument that monetary policy needs to be cautious but not "paralyzed". For instance, Cecchetti, Genberg and Wadhwani (2002) have argued:

> (W)e are not persuaded that one should ignore asset price misalignments simply because they are difficult to measure. The standard response to noisy data is to use econometric methods to extract the signal. This is common practice in the use of statistics in a policymaking environment. If central bankers threw out all data that was poorly measured, there would be very little information left on which to base their decisions (p.19).

[18] Also see Bernanke and Gertler (2001).

authority chooses to respond to such misalignments infrequently they should do so on a discretionary basis. This leads us to the next issue as to whether an inflation targeting arrangement errs on the side of policy rigidity and discipline or discretion and flexibility? While the exact balance between flexibility and rigidity will no doubt vary between countries (and possibly over time within a country), broad rules of thumb suggest: (a) the less credible the central bank (i.e. poorer its inflation-fighting track record); (b) the less its technical ability; and (c) the lower its political independence, the more advisable it is to pre-commit to a “strict” or “hard” inflation target (i.e. preference of a rule over discretion).

## 5. Conclusion

In the final analysis, regardless of the degree of flexibility or discretion that is desired, it is imperative that the central bank operating a flexible inflation targeting arrangement communicate effectively to the public the lexicographic ordering of its objectives and the time frame over which the central bank is committed to returning inflation to target. The central bank needs to be publicly committed to relinquish all other goals in order to meet the inflation target.

The inflation targeters in Asia have thus far not faced significant tradeoffs between inflation and other objectives in view of the fact that the global economic environment has, until recently, been non-inflationary. In other words, given that inflation has never really threatened to overshoot its predetermined band, many of the Asian central banks have been largely free to use monetary policy to attain other goals such as smoothing exchange rate changes. Put another way, to date the credibility of the system has not been seriously challenged. Many Asian inflation targeting central banks appear to take into account exchange rate movements – whether by targeting CPI inflation or by possessing some exchange rate objective over and above that implicitly given by CPI inflation targeting as described in section 3. It would appear though, that there is an asymmetry in the way that central banks

treat exchange rate movements. Specifically, they do not always alter interest rates in response to upward (buying) pressure on their currencies, preferring to intervene in the foreign exchange market and accumulate reserves, but they are more willing to hike interest rates (or use other measures such as tightening capital controls) in the midst of downward (selling) pressure on their currencies. This in turn inevitably has led to a rapid stockpiling of international reserves which have had to be sterilized so as to prevent a domestic monetary overhang.

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**Table 1**
**Highlights of Inflation Targeting Arrangements in Selected Asian Economies (as of July 2005)**

| Country | Date of initiation of Inflation Targeting Arrangement | Target price index | Target Rate | Target Horizon | Escape Clauses | Accountability | Target set by | Publication and accountability |
|---|---|---|---|---|---|---|---|---|
| Indonesia | May 1999 | Headline CPI | 5 – 6% | 3 years | none | None, but parliament can request reports at any time | Government in consultation Central Bank | Quarterly Inflation report, Annual report to public |
| Philippines | Dec 2001 | Headline CPI. Also monitors Core CPI (excluding agricultural products and petroleum products) | 4 – 6% | 2 years | Yes, in the event of oil price shocks, food supply shocks | Public explanation of the nature of the breach and steps to address it | Government in consultation Central Bank | Quarterly inflation report, publication of monetary policy meetings |
| Thailand | Apr 2000 | Core CPI (excluding fresh food and energy) | 0 – 3.5 % | Indefinite | None | Public explanation of breach and steps taken to address it | Central Bank in consultation with Government | Inflation Report, inflation forecasts and publication of models used |
| Korea | Jan 1998 | Core CPI (excluding non-cereal agricultural products and petroleum products) | 2.5 – 3.5%<br><br>2.5% | 1 year<br><br>Indefinite | Changes caused by major force | None | Central Bank in consultation with Government | Inflation report and submission to parliament, publication of monetary policy meetings |

Source: Compiled by authors from Bank of Korea, Bank Indonesia, Bank of Thailand, Bangko Sentral ng Pilipinas website