Discussion

1. Edward Surendran Robinson¹

Introduction

In the immediate aftermath of the Asian crisis, many commentators were prompted to dismiss **intermediate exchange rate regimes** in favour of one of two **'corner solutions'** – a rigidly fixed exchange rate (often backed up by a currency board) on the one hand, or a cleanly floating exchange rate on the other.

More recently however, there have been suggestions that perhaps academics and policy-makers may have been too hasty in ruling out all but the corner solutions. Fischer (2001), for instance, suggests that 'the choice between a hard peg and floating depends in part on the characteristics of the economy, and in part on its inflationary history', and admits that 'proponents of what is known as the bipolar view – myself included – probably have exaggerated their point for dramatic effect'. This has occurred even as studies are increasingly demonstrating that the corner hypothesis is not consistent with reality. Calvo and Reinhart (2000) show that despite countries' *de jure* stances, an inherent *de facto* 'fear of floating' still persists. The reality is that most countries, in fact, continue to adhere to some interior solution between the corner solutions of rigid fixity and free float.

Amidst the changing tide of opinion and evidence about choice of exchange rate regimes, John Williamson has – since as early as 1965^2 – remained steadfast in advocating the view that the intermediate solution and the crawling peg, in particular, may be a possible option for some open economies. Williamson's paper today represents yet another important contribution in this regard and takes the further step of illustrating how the basket, band and crawl (BBC) framework might be extended to a regional grouping of countries.

The main contribution of my discussion today will be to comment on Singapore's experience with its interior solution, based on an exchange-rate-centred monetary policy since the 1980s. I would like to focus my interventions around two broad points. First, I would like to briefly describe some of the features of the exchange rate system and how the flexibility accorded by the managed float system has been advantageous to us in facilitating adjustment to shocks to the economy as well as accommodating longer-term structural changes in the economy. Second, I would like to advance the view that the key issue facing policy-makers lies not in the particular choice of the exchange rate system *per se*, but in the institutions and other policies underpinning it.

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^{2.} See Williamson (1965) for a discussion of the 'crawling peg'.

Managed floating in a small open economy

Since 1981, monetary policy in Singapore has been centred on management of the exchange rate. The primary objective has been to promote price stability as a sound basis for sustainable economic growth. The framework incorporates the key features of the BBC system as Williamson describes it.

First, the Singapore dollar (SGD) is managed against a basket of currencies of our major trading partners and competitors. The various currencies are given different degrees of importance, or weights, depending on the extent of Singapore's trade dependence on that particular country.

Second, the Monetary Authority of Singapore (MAS) operates a managed float regime for the SGD. The trade-weighted exchange rate is allowed to fluctuate within an undisclosed policy band, rather than kept to a fixed value.

Third, the exchange rate policy band is periodically reviewed to ensure that it remains consistent with the underlying fundamentals of the economy.

Why the managed float?

The choice of the exchange rate as the intermediate target of monetary policy is predicated on the openness of the Singaporean economy to trade and capital flows.³ The small size and high degree of openness of the Singaporean economy is evidenced by the high ratio of its international trade relative to GDP. Total exports and imports are each well in excess of 100 per cent of GDP, while exports account for approximately two-thirds of total demand. Changes in the value of the trade-weighted SGD have therefore a significant influence on inflation and GDP outcomes.

The trade-weighted exchange rate for Singapore is as close to an ideal intermediate target of monetary policy as we can expect. It is relatively controllable and has a powerful and stable relationship with price stability, the final target of policy, over the medium term.

Coping with short- and long-term movements in the exchange rate

Williamson (1999) outlined several key issues that are fundamentally important in guiding and evaluating the choice of exchange rate regime. He distinguished

^{3.} The choice of the exchange rate as the intermediate target of monetary policy implies that the MAS cedes control over domestic interest rates. In the context of free movement of capital, interest rates in Singapore are largely determined by foreign interest rates and investor expectations of future movements in the SGD. Results from a recent empirical study (MAS 2000) found that various interest parity conditions held during the 1990s prior to the Asian crisis, which provides price-based evidence of capital account openness. Not only did covered interest parity hold, as is the case with most countries with well-developed money and foreign exchange markets, but the uncovered interest parity condition also held during this period, unlike most other countries. The parity conditions indicate that Singapore's money market has been fully integrated with international markets.

between the two distinct dimensions of exchange rate variability: *short-term volatility* on the one hand, and *longer-term currency misalignments* on the other – and discussed how various exchange rate systems cope with these. (He suggested that on the first criterion, free floating and managed floats cope well, while the crawling peg does the best on the second.) I shall now illustrate these points briefly using Singapore's experience.

Short-term volatility

In the short term, managing the SGD within a band provides the flexibility to prevent volatility in the financial markets from adversely affecting the real economy, as evidenced, for example, by the recent Asian crisis episode. During that period, the MAS was able to widen policy bands as volatility increased in foreign exchange markets and subsequently narrow them when some degree of calm had returned to the regional markets. Reflecting the MAS's targeting of the nominal effective exchange rate (NEER), Singapore's trade-weighted exchange rate has remained fairly stable. Volatility as measured by the monthly standard deviation of the NEER was significantly lower for the SGD compared to that of the United States dollar (USD) or Japanese yen (JPY). The standard deviation of the SGD NEER was 1.46 per cent between 1981:Q1 and 2001:Q1, compared to 3.45 per cent for the USD and 4.82 per cent for the JPY.⁴

At the same time, movements of the SGD against major currencies, especially the USD, have been less volatile than movements among the major currencies. Table 1 shows that the SGD has been less volatile with respect to the other currencies than if it had been pegged to any of the main currencies. For example, if the SGD were pegged against the USD, the monthly standard deviation against the JPY and DM would have been 3.42 per cent and 3.27 per cent respectively instead of 2.99 per cent and 2.92 per cent. The 'basket' characteristic of the managed float system has therefore also helped to mitigate some volatility as compared to if the SGD were on a bilateral peg.

| Table 1: Standard Deviation of Monthly Currency Movements since 1981 Per cent | | | | | | | | | | |
|---|----------|---------|--------|----------|---------|--------|--|--|--|--|
| NEER | S\$/US\$ | S\$/Yen | S\$/DM | US\$/Yen | US\$/DM | DM/Yen | | | | |
| 1.46 | 1.57 | 2.99 | 2.92 | 3.42 | 3.27 | 3.11 | | | | |

Longer-term currency misalignment

Over the longer term, the managed float has provided the flexibility for the MAS to prevent currency misalignments by allowing the equilibrium (real) value of the

^{4.} The NEER series for the USD and JPY are based on the quarterly series published by the IMF.

exchange rate to reflect changes in underlying fundamentals, such as a trend increase in the savings rate and higher productivity in the export sector. Notably, the trade-weighted SGD has been on a secularly appreciating trend since 1981 in both nominal and real terms.

Corroborating this, Gan (2001), using a 3-variable SVAR methodology based on Clarida and Gali (1994), finds that supply shocks which have permanent effects on output account for more than 30 per cent of real exchange rate movements. In particular, the estimated impulse response functions show that a positive supply shock leads to a persistently higher level of relative output and a permanent appreciation in the real exchange rate (see Table 2).

| Variables | Horizon | Structural shocks | | |
|--------------------|----------|-------------------|-------|-------|
| | Quarters | u ^s | u^d | u^n |
| Relative output | 1 | 57.5 | 32.2 | 10.3 |
| - | 2 | 60.1 | 30.6 | 9.3 |
| | 3 | 67.8 | 23.2 | 9.0 |
| | 4 | 72.8 | 18.5 | 8.7 |
| | 8 | 81.9 | 15.0 | 3.1 |
| | 12 | 82.0 | 14.6 | 3.4 |
| | 20 | 89.8 | 7.1 | 3.1 |
| Real exchange rate | 1 | 20.8 | 51.6 | 27.5 |
| | 2 | 24.9 | 51.4 | 23.7 |
| | 3 | 20.8 | 52.2 | 27.0 |
| | 4 | 27.5 | 51.9 | 20.6 |
| | 8 | 32.3 | 51.3 | 16.4 |
| | 12 | 31.3 | 53.5 | 15.2 |
| | 20 | 30.8 | 54.0 | 15.2 |
| Relative prices | 1 | 25.3 | 19.2 | 55.5 |
| | 2 | 25.7 | 18.9 | 55.4 |
| | 3 | 32.3 | 17.3 | 50.4 |
| | 4 | 32.7 | 17.4 | 49.9 |
| | 8 | 37.2 | 13.0 | 49.8 |
| | 12 | 38.9 | 11.3 | 49.8 |
| | 20 | 38.6 | 11.2 | 49.8 |

Table 2: Decomposition of Forecast Error Variance from 3-variable SVAR for Singapore

Notes: The endogenous variables in the SVAR are relative output (the ratio of Singapore real GDP to trade-weighted average foreign GDP), Singapore's real exchange rate (defined such that an increase in the index implies an appreciation) and relative price level (ratio of Singapore CPI to the trade-weighted CPIs). The SVAR was estimated on quarterly data over the period 1985:Q1 to 2000:Q4.

The paper reports another interesting finding, one that provides evidence that the real effective exchange rate responds to shocks in a manner consistent with macroeconomic stability. Specifically, it finds that while the qualitative dynamic responses of the real exchange rate and the relative price level are similar, a supply shock leads to a greater appreciation in the exchange rate than the increase in relative prices. This indicates the role of nominal appreciation in facilitating the equilibrium adjustment in the real exchange rate. The nominal appreciation absorbs the productivity shock and prevents the increase in the relative price of non-traded goods from spilling over into more serious overall inflationary pressure.

The secular appreciation of the SGD exchange rate has helped to keep inflationary pressures in check. Between 1981 and 1987, domestic inflation averaged 2.3 per cent – markedly less than external inflation (as proxied by a trade-weighted average of foreign composite CPI) which averaged 4.6 per cent over the same period.

A multi-dimensional approach to exchange rate management

Williamson has graciously dubbed Singapore 'the world's most successful practitioner of a BBC regime'. While I have recognised the flexibility accorded by the managed float system above, my second main argument in this discussion is to recognise that the challenges posed by the vagaries and dynamics of global financial markets cannot be met by the judicious choice of exchange rate regime alone. They need to be supported by a framework of consistent macroeconomic and microeconomic policies, and by strong institutions. The exchange rate system may therefore be viewed as a 'monetary overlay' on the real economy foundations. In this sense, exchange rate policy has moved beyond the confines of the traditional parameters of instruments, targets, transmission mechanisms and inflation–output trade-off issues.⁵ Some key support factors are identified below.

First, **sound and credible macroeconomic policies** are essential to avoid the build-up of major macro-imbalances in an economy. This will reduce its vulnerability to speculative attacks and swings in capital flows by preventing misalignments in the value of its currency. It is also worth highlighting the importance of coordinating macroeconomic policies across the relevant agencies so as to achieve consistency in promoting conditions conducive to sustained growth of the economy.

In Singapore, for instance, prudent fiscal policy absolved the MAS of the need to finance the government, allowing it to concentrate on its primary responsibility of maintaining price stability. At the same time, the MAS has also established considerable credibility with the market, earned through its track record of running a monetary policy that has yielded low inflation and sustained economic growth over a long period. Singapore's large foreign reserves and macro-prudential policy limiting the extension of credit to non-residents also discourage speculative attacks on the SGD.

^{5.} This section draws on Khor and Robinson (2001).

The public sector in Singapore has no foreign debt, while banks and corporations have generally not borrowed from abroad in foreign currencies given low domestic interest rates. The lack of balance sheet vulnerabilities has been an important factor in preventing the economy from being pushed into the 'zone of vulnerabilities' and hence facing the risks of intense speculative attacks on the currency in times of regional turmoil, market contagion or a significant shock to our terms of trade.

Second, the **flexibility of product and factor markets** is essential in order to cope with and adjust to shocks arising from the volatility of currency markets and swings in the terms of trade in world product markets. This is particularly true for small open economies, which are dependent on exports of goods and services.

Third, it is crucial to develop and strengthen financial systems in order to enhance robustness to shocks. Cooper (1999) makes the pertinent point that countries with small and poorly developed capital markets may face even more limited options within the 'open economy trilemma' of fixed exchange rates, independent monetary policy and free capital movement. Such countries may also find the combination of floating rates, independent monetary policy and free capital movement incompatible with weak corporate and banking sectors. In comparison, well managed financial institutions which adhere to sound credit practices and have built up strong capital positions are better able to withstand business cycle shocks. In addition, a sound and efficient banking system together with deep and liquid capital markets contribute to the efficient intermediation of financial flows. This helps prevent the emergence of vulnerabilities in the financial system by minimising unsound lending practices that could lead to the build-up of excessive leveraging in the corporate sector and exposure to foreign borrowings. Deep and liquid markets also help absorb the effects of external shocks and prevent their spillover to the rest of the economy.

Recognising this, the MAS undertook a strategic review of its financial sector policies in 1997 in order to keep pace with the rapid changes in global financial markets. This resulted in measures to develop the bond market, asset management industry and the insurance industry as well as open up the domestic banking industry to greater competition. We also liberalised our policy on the restriction of credit to non-residents in order to allow foreign investors to issue SGD bonds and to finance their SGD investment with domestic funds. Through these measures we hope to foster the development of a more diversified and robust financial system.

Fourth, countries need to **build up their regulatory and supervisory capabilities** to keep pace with financial innovations, the growing complexity of financial institutions' activities, and new products and services. Regulators need to ensure that financial institutions have proper credit and risk management systems in place and that they provide adequately for market and operational risks. This also implies that financial reforms need to be managed in a controlled and orderly manner. Countries that have not fully liberalised their capital accounts should do so at a pace that is commensurate with the strength and efficiency of their financial systems. Concomitantly, regulators need to build up their capabilities to cope with an enlarged

supervisory role. In Singapore, the 1997 policy review also resulted in a shift of our supervisory regime from one-size-fits-all regulation to risk-based supervision.

Fifth, policy-makers should promote **greater disclosure and transparency**. This will help to foster market discipline, as well as reduce the likelihood of markets over-reacting due to lack of information or information asymmetries. Increased transparency can be brought about on several fronts. These include raising bank disclosure standards, improving corporate governance, providing more information on how government policies are conducted, and releasing economic and financial data in a timely and regular fashion.

Finally, we have made a major effort in the last two years to increase the transparency of our monetary policy framework. In particular, we have provided more data and substantially increased the flow of information to the market and public through our publications and internet website with our analyses and views on developments in and the outlook for the economy and financial markets.

The latest initiative is the recent decision to publish a *Monetary Policy Statement* soon after we complete each semi-annual review of exchange rate policy. In our latest Statement in July 2001 we also revealed more information about the trade-weighted SGD including its most recent movements within the policy bands. These (ongoing) efforts go some way towards addressing concerns that have been raised in the literature (see, for example, Frankel *et al* (2000), Frankel, Schmukler and Servén (2000)) that fixed or floating regimes are more readily verifiable than the interior solutions. In the final analysis though, credibility in monetary policy derives from a track record of adhering to consistent and appropriate policies that are firmly oriented towards achieving price stability over the medium term.

Conclusion

Emerging economies certainly face a difficult choice amidst the ongoing debate over the disappearing middle option along the continuum running from fixed to flexible exchange rate systems. Cooper (1999) notes that 'The choice of exchange rate regime was not always so vexing; during much of the modern era it was in practice dictated by convention, by internationally agreed rules, or by uncontrollable external circumstances'.

Williamson's paper has provided a useful framework to reassess the middle option, specifically a system that offers the advantages and flexibility of the BBC regime. I have tried to highlight the aspects of such a framework that have accorded an ultra small open economy some flexibility in coping with external shocks. However, I have also emphasised that Singapore's experience suggests that policy-makers in small emerging economies also face the difficult *task* of building up their macroeconomic policy framework and supporting institutions as a firm foundation to support the chosen exchange rate/monetary policy regime.

Finally, let me make a brief comment on Williamson's suggestion for a common basket peg for east Asia. I think it is an interesting idea and one that deserves serious consideration. The paper though readily admits some of the practical difficulties associated with implementing the proposal.

As a general observation, it is my view that countries in the region are some way off from implementing closer forms of monetary cooperation and integration. This is especially so given the relatively wide divergences in economic characteristics such as GDP per capita, business cycle synchronisation and price and wage flexibility.

Asian countries would want to focus their efforts instead on deepening the integration of their markets. This would include developing greater intra-regional trade linkages, integrating financial markets and establishing regional production networks. Underpinning this should be an evolution of common codes of conduct and standards of corporate governance, as well as greater regulatory cooperation and harmonisation. Perhaps in the longer term, when Asia has achieved a certain degree of integration in its factor and capital markets, some form of closer monetary cooperation and integration can be an effective means for the benefits of the economic linkages to be secured.

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2. Takatoshi Ito

First of all, let me say that I broadly share John Williamson's views, so my comments are more sympathetic and constructive than critical. The main thrust of his paper is that the east Asian/south-east Asian economies will be better off adopting a BBC regime than either of the extreme 'corner solutions'. (Williamson argued for this position as early as 1996, published as Williamson (1999).) First, he argues for a **basket** because east Asian countries' trading partners are diversified; so a basket is essential to keep the real effective exchange rate (REER) stable. Second, a **band** is desirable because of uncertainty about the equilibrium exchange rate, and the drift of the appropriate basket, may necessitate some flexibility. Third, a **crawl** is good because of adjustments for inflation differentials and Balassa-Samuelson effects.

Proving the desirability and feasibility of the exchange rate management inherent in a BBC regime is key. Williamson feels that a free float would allow too much volatility of the exchange rate. As the exchange rate is often subject to fads and bubbles, policies to stem both tails of the distribution are desirable. Additionally, the desirability of exchange rate management may be justified by the conventional wisdom that excess volatility will damage trade and foreign direct investment. Portfolio capital flows also tend to be pro-cyclical, exacerbating appreciation and depreciation. For all these reasons, it is understandable that emerging economies will have a 'fear of floating' à la Calvo and Reinhart (2000). Thus, the case for desirability can be made.

Turning to the issue of feasibility, Williamson lists three tools for exchange rate management: monetary policy; sterilised intervention; and capital controls. Let me comment briefly on each of these three. On monetary policy, Williamson criticises the effectiveness of interest rates in the defence of a currency in crisis. I, however, would differentiate between the impacts of monetary (interest rate) policy during peacetime and during the height of a currency crisis. I would argue that raising the interest rate to an annualised rate of 500 per cent (a little above 1 per cent on a daily basis) has minimal impact if the peg is about to be abandoned with a possibility of depreciation of 15 per cent or more within several days. However, during peacetime, I think that the interest rate differential is one of the important variables that affect the exchange rate.

On sterilised intervention I share the view that this is effective in checking extreme volatility by influencing market expectations. To illustrate the effectiveness of sterilised intervention consider the example of Japan. The Japanese Ministry of Finance recently disclosed its history of intervention from April 1991 to March 2001. The Japanese monetary authority intervened in the yen/US dollar market 200 times in 10 years (and 12 times in other currency markets). All interventions in support of the yen (selling dollars and buying yen) occurred when the yen was weaker than 125 yen/US dollar, and all interventions to weaken the yen (selling yen and buying dollars) occurred when the yen was stronger than 125 yen/US dollar. This shows that the Japanese monetary authority was consistent in their view of where the equilibrium

exchange rate (approximately) lies, and made capital gains from buying the dollar low and selling it high. As Milton Friedman stated, those 'speculators' that make profits stabilise the exchange rate. In this sense, the Japanese monetary authority succeeded in stabilising the yen/US dollar exchange rate.

Finally, on capital controls, Williamson has a convincing argument that Chilean-type prudential controls on short-term capital inflows are effective (Williamson 2000). In the last three years, some Asian countries have 'de-internationalised' their currencies, namely, by banning offshore forward trading of currencies without any corresponding underlying trade or investment transactions. Nonetheless, it is hard to gauge what their effect would have been during the Asian crisis. For example, an interesting counterfactual question is whether Thailand's crisis could have been less severe if these prudential measures had been in place before the spring of 1997.

It is also important to consider the relationship between a BBC regime and inflation targeting (IT). According to corner-solution advocates, having a nominal anchor is important, and either a hard peg (e.g. currency board) or inflation targeting with free floating gives such a nominal anchor. Moreover, pursuing both inflation targeting (or an independent monetary policy in general) and a soft peg was considered to be incompatible, given the free mobility of capital.

In contrast, Williamson asserts that 'the BBC regime should not be viewed as an *alternative* to inflation targeting, but as a *complement* to it' (see this volume, p 99). I would characterise the relationship between a BBC regime and IT as follows. When the exchange rate is inside the band, monetary policy can be independent, and can pursue an inflation target. However, when the exchange rate comes near the edge of the band (either the floor or the ceiling), monetary policy gives way to exchange rate policy. In other words, intervention will be employed with monetary policy being conducted with more weight on exchange rate management. This view may be slightly different from the view Williamson had in mind.

Finally, I would like to emphasise the importance of coordination among the Asian – in particular south-east Asian – countries in the implementation of a BBC regime. Suppose that a country uses trade weights for its currency-basket weights. Suppose also that the country trades equally with the US, Japan, EU, and its neighbouring countries. Trade weights should then be 25 per cent for each of the US dollar, the yen, the euro, and the basket of regional currencies. If the neighbouring countries have adopted a US dollar peg, then the weight on the dollar for this country increases to 50 per cent. In contrast, if the neighbouring countries also adopt basket-currency arrangements with trade weights, and the trade weights are the same with this country, another equilibrium with currency weights of one-third on the dollar, the yen, and the euro will be achieved (see Ogawa and Ito (2000) for details). Therefore, coordination is important to pull countries away from inertia to a common basket.

As a first step towards closer economic and financial cooperation, the Chiang Mai Initiative, including the ASEAN nations, Japan, Korea and China, was launched in May 2000. It was aimed at developing a network of swap arrangements for currencies. By May 2001, Japan had reached an agreement with Thailand, Korea, and the Philippines for building bilateral swap agreements. Separately, the ASEAN 10 nations agreed to expand the existing \$200 million ASEAN swap facility among five countries to a \$1 billion facility. While economic surveillance will be a key to preventing a crisis in the region, the Chiang Mai Initiative may contribute to prevention as well as crisis management. Thus, steps are already being taken towards greater coordination and cooperation.

Further questions can be posed of Williamson's paper. First, is a BBC regime a first step toward monetary integration? This depends on how inter-regional trade proceeds. If a common basket encourages the countries to trade more with each other, then a move toward monetary integration will be accelerated. Second, how often should the basket be revised? If it is too often, the basket cannot establish its reputation, while if it is too rare, there is a danger of misalignment. Third, should Australia adopt a BBC regime? Fourth, will the Chiang Mai Initiative develop into a BBC regime? Fifth, can a currency board country adopt a basket without a band, in other words, a BxC regime? Finally, will Argentina succeed?

Each of these topics may need substantial work, but these questions are important in developing closer cooperation in the region.

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3. General Discussion

Initial discussion centred on the specifics of any BBC regime in east Asia. One participant commented on the different models put forward by Wyplosz and Williamson. Specifically, Williamson argues for a G3 basket with some degree of flexibility both between Asian countries and with the rest of the world while Wyplosz suggests that Asia should fix internally and float with respect to the rest of the world. What arrangement would be more appropriate? The participant then raised the possibility that there could be some game playing involved in choosing the basket weights. The choice of currency basket by one country could influence the choice of currency basket for other countries in the region.

Another participant asked which countries should be members of an Asian BBC regime. Cambodia and Vietnam are essentially dollarised and this would not sit well with a BBC arrangement. A response offered was that Cambodia and Vietnam would not necessarily have problems in a BBC regime unless there was an imbalance between their assets and liabilities denominated in US dollars. If more liabilities were denominated in dollars this could present problems but should not otherwise.

Following this, discussion turned to more general features of BBC regimes. In particular, a participant pointed out that the attraction of an inflation target is its transparency. A problem with a BBC regime is that it is quite opaque. However, some participants felt that transparency was not a problem as markets could easily work out the parameters of the regime – only a little residual uncertainty would remain. An analogy was drawn with the introduction of floating exchange rates – there was a lot of concern about their behaviour when they were first introduced but people have learned to live with them; similarly, people should learn to live with BBC regimes.

One participant raised the question of how flexibility and inter-regional cooperation might affect the implementation of a BBC regime. Most international agreements are difficult to form and respond only slowly to change. Given this, how flexible could a regional BBC arrangement be in the face of significant shocks? This is particularly relevant as the principal value of a flexible exchange rate is that it can respond quickly to crises; not its behaviour during normal times. In the following discussion it was pointed out that crashes are large shocks that have to be absorbed somewhere; the problem is not to avoid exchange rate changes but to deal with the cause of the shock – the exchange rate is just one possible shock absorber.

One participant questioned what was the important difference between the exchange rate regimes of Singapore and Australia or New Zealand. The only difference, it was proposed, is in how automatic intervention is. Intervention is discretionary in Australia and New Zealand while it is automatic in a BBC regime – this automatic intervention could be a problem in the face of determined speculators.

Many participants wondered what the appropriate policy responses at the edge of the bands of a BBC regime might be. Some participants feared that as soon as you reach the edge of a band markets will initiate a speculative attack. These speculative attacks are not based on a consideration of what the right target is, but on the presence of an arbitrary line the monetary authority has committed to holding. On this basis, it was suggested, a BBC arrangement is no better than a soft peg. In response, one participant hoped that the edges would act as stopping points if the authorities were credible. If the authorities were credible, there should be stabilising speculation at the edges of the bands as market participants traded on the expectation that the monetary authority would be intervening to support the band – Krugman's 'smooth pasting' argument. Other participants were less confident of the stabilising properties of announced edges to an exchange rate band.

Finally, it was suggested that, while BBC regimes may be easier to set up, they are not necessarily best for the long run. Currency unions, on the other hand, are much harder to set up but, once going, provide a set of institutions that may be more durable.