Tony Latter: Derivatives from a Central Bank perspective

Speech by Mr Tony Latter, Deputy Chief Executive of the Hong Kong Monetary Authority, at the Seminar Programme of the FOW Derivatives Expo, Hong Kong, 5 November 2001

*   *   *

Introduction

Why may central banks be interested in derivatives? Although it is dangerous to generalise, and no two central banks may see them in precisely the same light, there are certain aspects of derivatives in which central banks, including the Hong Kong Monetary Authority, probably have a common interest. I should like to review some of these today.

For present purposes one does not need to be too precise as to what is meant by derivatives, save to note that the focus here is only on financial derivatives, although these do of course share many of the same basic characteristics as commodity or other derivatives. The textbooks give various definitions of a financial derivative: for instance, that it is a contract the value of which depends on or derives from the value of some underlying financial asset or index; or that it is an instrument which does not constitute ownership but only a promise or option to convey ownership. At its widest, the definition could embrace all futures, forwards, swaps, options, warrants, convertibles, asset-backed securities and so on, and all combinations or variations of those. At the end of the day it's probably fair to say that, although we may experience some difficulty in describing exactly what a derivative is, we can usually recognise one when we encounter it.

The interests of the central bank in derivatives will tend to be rather broader than those of any commercial bank, trader or broker, because of its multiple policy responsibilities. The issues can be conveniently grouped under four headings: infrastructure, supervision, information, and operations.

Infrastructure

HKMA is probably fairly typical of most central banks in developed financial centres in having a general concern for the stability and development of the financial infrastructure, but without necessarily being involved directly in the provision of that infrastructure, of which derivatives nowadays form an indispensable part. Derivatives have brought substantial benefits to the commercial community, in facilitating hedging and hence business planning more generally, and have enabled the financial institutions to offer a progressively wider range of services and greater efficiency in the intermediation process, as well as to exploit market imperfections and other trading opportunities for their own gain.

The range of available derivative products in Hong Kong is extensive. Exchange tradable derivatives include futures and options on the Hang Seng Index as well as on individual Hong Kong stocks and, since the launch a few weeks ago, on a selection of leading stocks of certain overseas exchanges. Exchange traded interest rate products include one-month and three-month HIBOR futures; and futures contracts on three-year Exchange Fund Notes are expected to commence trading later this month.

Less visible, perhaps, to the outside observer, but no less important, is the trading of over-the-counter derivative products among financial institutions. Fewer high frequency statistics are available for OTC activity than for exchange-based activity, but the Bank for International Settlements publishes regular estimates and has recently released the results of its comprehensive triennial survey of activity in the world's foreign exchange and related derivative markets. The HKMA has in parallel released some details of the Hong Kong data which we collected and submitted for that survey.[1] Briefly, in the three years up to April 2001, while, roughly in line with experience elsewhere in the world, turnover in the foreign exchange market in Hong Kong declined, activity in OTC derivatives - essentially currency swaps and options, and interest rate swaps, options and forward rate agreements - rose by just under 10%. Interest rate products accounted for almost two thirds of the total of this derivatives activity.

The apparent buoyancy of interest-rate related activity may be partly attributable to the growth of composite products such as structured notes which include an option or swap element. Some of the

[1] A fuller account will appear in the forthcoming November issue of the HKMA Quarterly Bulletin.

growth in the interest rate swap market has also been associated with the continuing development of the Hong Kong dollar bond market, where well-rated names may combine issuance of longer-term fixed-rate paper with a swap to secure floating-rate Hong Kong dollars at sub-HIBOR, or, particularly in the case of some international borrowers, link this also with a currency swap to obtain US dollars at sub-LIBOR.

As regards exchange traded products, there has been a recent surge of activity in HIBOR futures. This may owe something to the steep downtrend in interest rates this year, which could have prompted both those who expect it to continue and those who are content to lock in borrowing at current low rates, to enter the futures market in order to speculate or hedge on their respective hunches.

All in all, as these various examples illustrate, the derivatives infrastructure in Hong Kong has developed well to meet the evolving requirements of the business and financial communities.

Supervision

Despite for the most part providing a beneficial service, derivatives trading also has the potential to bring disaster. Mere mention of the word Barings is no doubt sufficient to make the point.

It is for this reason that the relevant authorities exercise supervision of derivatives activity. In the Hong Kong context, HKMA supervises the banks and other deposit taking institutions to ensure suitably prudent behaviour, while the SFC regulates exchange trading and the other players.

I should perhaps make the point here that supervision is not aimed at suppressing activity, but rather at ensuring that risks are properly identified and managed and that disasters which might threaten systemic stability are avoided. Particular emphasis is placed on ensuring that management possesses sufficient understanding of the derivatives business and the associated risks, and has the appropriate internal mechanisms in place for monitoring and control.

Officialdom in general, and central banks more especially, are sometimes characterised as being opposed to speculation and, by extension, as being suspicious of derivatives, which are often regarded as a convenient vehicle for speculation. That characterisation is mistaken. We are not opposed to speculation. Indeed, we recognise very clearly that financial markets cannot operate efficiently if the speculator is excluded. He plays a key role in the price formation process and is the essential counterparty to the hedger. The textbooks tell us that if the speculator stabilises prices he makes a profit, while if he doesn't he loses. The fact that speculators still exist is then taken as prima facie evidence that their activity is on balance stabilising, although I am also conscious of the counter-argument, namely that they are destabilising and lose money, but the population of them is constantly being replenished by fools who think they can do better.

However, although we acknowledge the generally positive role of speculation, we are very much opposed to manipulation. The key distinction is that, whereas the speculator takes a view based on the price which he observes in the market and acts upon it, the manipulator uses his resources and the advantage of a dominant market position to try to influence the price - in other words, he is a potential price setter rather than a price taker. Particularly in small markets where relatively small deals may be able to move prices significantly, we need to be alert to this potential problem, which may, if unattended, seriously undermine one's vision of competitive, efficient markets.

Information

The prices at which derivatives trade contain information which may usefully supplement other market data available to central banks as a means of monitoring expectations and sentiment.

Let me give just two examples. First, in the foreign exchange market, whereas the forward rate may provide a point estimate of the expected future rate, data on option prices for different strike prices can provide a probability distribution for the future rate. This additional information, available only as a by-product of derivatives trading, may be of interest to market analysts, including the monetary authorities. Within the HKMA we have conducted some research into this, which we are in the process of discussing with academics and other technicians. Second, with exchange traded products, where levels of activity are clearly visible, sudden surges or collapses in turnover may hint at shifts in sentiment for one reason or another. Although it may not always be clear what story best fits a particular statistical movement, it is sensible to be alert to such developments and try to understand the signals which they may give.

Operations

It may be considered natural for central banks, like any other financial institutions, to be active on their own account in the derivatives markets. Nevertheless, there are perhaps one or two cautions which might apply in the case of central banks.

If a central bank is trading for profit - as it would usually be when, for instance, managing its foreign currency reserves- it may be presumed to follow the normal trading strategies of any portfolio manager, within specified guidelines and subject to appropriate risk controls of course. Derivatives may usefully be part of that, providing an efficient avenue for pursuing trading or hedging opportunities. It seems entirely reasonable for the central bank to be allowed to operate in this way, but, in derivatives as in the cash markets, the central bank may need to balance the objectives of fund management against those of its own monetary or exchange rate policy.

There is also a question whether derivatives should be used as a deliberate tool for monetary policy purposes. Typical examples would be use of foreign exchange forwards or options to assist in maintaining exchange rate stability. A couple of years ago, partly in response to some academic debate on the subject, the HKMA did in fact examine the case for the Exchange Fund to write currency options. We concluded as follows: "… the writing of currency options by the HKMA appeared to be technically feasible and might be consistent with currency board principles if properly designed ….. In theory at least, the writing of currency options by a central bank could be a useful tool in helping to stabilise exchange markets under certain conditions …. However, … the theoretical benefits seemed to be outweighed by the disadvantages … [including] the complications that the writing of options would bring to the currency board system, and the possibility of negative perceptions that the HKMA was engaging in risky activities or lacked the means to support the currency board system in the spot market."[2]

The feasibility and advisability of using derivatives as a monetary instrument are subjects which have been debated over the years by academics and policymakers, and a few countries have relevant experiences to tell. A number of points seem worth making. First, in most instances, if you are confident in your monetary policy you should probably be up front in supporting it by your actions. If you don't possess sufficient resources for that support, you should certainly think twice before leveraging yourself in derivatives, even if it can be demonstrated that such a strategy might, if successful, be profitable - for the potential downside could be considerable. Second, although central banks and governments are nowadays much more transparent about their operations than previously, use of derivatives may in some instances provide some temporary disguise, but disguise would seldom be a very healthy reason for selecting a strategy. Third, as implied in the above quotation, the perception continues to exist that derivatives are a particularly risky activity, or one which might signal some degree of desperation. Despite the fact that such views may be irrational, a central bank may need to acknowledge public sensitivities and err on the side of conservatism in its operations. Fourth, in searching for the most cost-effective or reliable avenue for monetary operations, it should be borne in mind that the derivative markets may be more fickle and less liquid than the cash markets, perhaps the more so at the very moment when you might be most tempted to use them.

In sum, I do not currently see a convincing case for using derivatives as a monetary policy tool. In the final analysis, however, a central bank is entitled to keep all its options open and to surprise the markets if it so wishes, provided that it is ultimately accountable for its actions.

Conclusion

I have tried to briefly explain some of the angles from which central bankers generally, and the HKMA in particular, view derivatives. This is perhaps a rather dry topic and I feel sure that there are many more interesting and challenging aspects of derivatives which will be discussed during these two days of seminars related to the Derivatives Expo.

[2] Record of discussion of the Exchange Fund Advisory Committee Sub-committee on Currency Board Operations on 5 November 1999, reproduced in HKMA Quarterly Bulletin, February 2000.