

Speech given by

**THE RT HON ROBIN LEIGH-PEMBERTON
GOVERNOR OF THE BANK OF ENGLAND**

at The Third Annual Alumni Dinner of
The City University Business School
Evening MBA Programme

on Thursday 11 February 1988

ASSESSING THE STOCK MARKET CRASH

In an article last week on the events of October, the Financial Times remarked on how little official analysis of the crash appeared to have been produced here, and observed that the Americans had pulled ahead of us to the extent of several stout volumes of analysis and prescription. As you will have seen, we have taken some modest steps towards reducing the gap: in today's Quarterly Bulletin the Bank has provided a reasonably concise account of the crash - although it does certainly not pretend to be a "UK Brady Report"; the Stock Exchange have released their own "Quality of Markets" report; and some of you may have heard Sir Nicholas Goodison's excellent speech yesterday to another City University audience. But I was never, to be honest, very concerned about our apparent slowness to leap in with elaborate post-mortems or proposals for structural change in the markets or in their regulation. "Post-mortem", in any event, seems scarcely the appropriate term, given that the world's equity markets appear to have been restored, if not to rude health then at least to a reasonably stable condition.

There are two general points worth making about the American reports. First, many are concerned with the effectiveness of the various regulatory arrangements in the United States, and address questions which have already been decided here and which it would be foolish for us to reopen until we have some experience of the new regulatory system now coming into being. Second, the American studies have been concerned partly with the causes of the crash; and since in looking for causes here we have to start with the US markets, there is not much to be gained from duplication.

It nevertheless seems appropriate for me now to offer some preliminary views on the crash, to suggest some of the areas that may repay further study, and perhaps to suggest some tentative conclusions at least for our markets in the United Kingdom.

A portrait of the crash

Let me begin by recalling briefly the history of the bull market which came to an end so abruptly last autumn. In London, prices began to rise in a sustained way in early 1982, when the FT 30 share index stood at around 550. Over the succeeding five years or so, to the middle of 1987, the index moved up to about 1850, an increase of almost three and a half times. After allowing for inflation, the real increase in prices was still of the order of 170%. This represented one of the strongest and most prolonged bull markets since the Second World War.

At the beginning of last year, when the bull market had already been running for some time, the pace quickened appreciably. By June, the FT 30 share index was about 35% above its level at the beginning of the year. There was then a moderate adjustment but by mid-August prices were again beginning to rise quite briskly. In the months before the crash, earnings yields on UK equities had

fallen to the lowest level since 1973, some three percentage points below the yield on government bonds.

The pattern of price movements in New York and Tokyo was similar to that in London although there were differences in the timing of the periodic peaks and breaks in the continuing bull market. The Dow Jones index rose by a factor of three and a third and the Nikkei-Dow by a factor of three and a half over the five years to mid-1987 - very close, therefore, to the increase in London. London and New York continued broadly in step during the subsequent fall, and having at one stage been 35-40% higher, they finished the year about where they began it. In Tokyo, however, while the increase in prices during the first three quarters had been similar to that in London and New York, the subsequent decline was only half as large; and in dollar terms the Tokyo market was almost unchanged over the fourth quarter.

As to the causes of the decline, it seems fairly clear that an underlying concern about prospects for the world economy, especially focussing on the external imbalances between the major countries, coupled with a more immediate worry about the possibility of a collapse in the dollar and rising interest rates, brought about a break in market psychology in October. But the extent of the decline in prices was out of all proportion to the economic news then emerging, and this does suggest that the fall was indeed a correction, the bursting of a bubble. If it is true, as many would argue, that equity prices had by last October reached levels which were conspicuously out of line with the so-called fundamentals, it is perhaps not very instructive to try to pin responsibility for the crash on particular short-term factors.

But the crash has provoked a great many questions about the way markets operated and the way investors behaved. I will address just three: the adequacy and robustness of trading mechanisms; the interaction of the cash and derivative product markets; and finally, some implications for prudential supervision, including in particular the assessment of capital adequacy and of credit exposure.

Market structure

The trading mechanism in New York depends heavily on the "specialist", who occupies a position in the market which is in some respects similar to that of a traditional London jobber. Each specialist has sole privileges and obligations in relation to a particular and distinct group of shares. These include a commitment to make, as principal, a two-way price on the Exchange floor, and to act to moderate volatile movements. With the approval of the Exchange authorities a specialist can, for

example, delay the opening of trading if the imbalance of orders would indicate a price significantly different from the previous day's close.

In London, the jobbing system has given way to one that emphasises competition between a number of market makers, each of whom is obliged to make, during market hours, continuous two-way prices in the stocks in which he is registered. The system can perhaps be seen as giving priority to continuous liquidity rather than to price stability. Since the Big Bang a further and important difference has emerged, as between London and New York, in the typical corporate structure of the firms involved. Most London market makers are now part of much larger financial groups and as such have relatively flexible access to additional capital; the New York specialists, on the other hand, are mostly independent firms.

These differences were reflected in behaviour during the crash. In New York, trading in many stocks halted altogether on 20 October in the face of huge imbalances in the orders received by the relevant specialists. Some firms suffered pressure on their capital resources, which in turn made banks wary of extending further credit or led them to recall existing loans. In the absence of a ready source of new capital several firms were forced into mergers. In London, on the other hand, any disruption of trading seems to have been manifest mainly in the sense that market makers were said to be sometimes difficult to reach on the telephone - but this does not seem to have prevented record volumes of trading on the days when it was supposed to be happening. Pressure on market makers' capital was reflected in capital injections from their parents during, or shortly after, the crash. But although London's experience in October was perhaps less obviously traumatic than New York's, the abnormality of trading conditions was well illustrated by a substantial widening of spreads. This seems to have affected particularly alpha stocks, for which the "touch" roughly doubled, but was also true for the less liquid beta and gamma stocks.

Derivative and cash markets

Trading in derivative products associated with the equity markets has been identified by some as a major factor contributing both to the speed of the decline in, and the volatility of, cash market prices. The use of such products in this country is very limited and the volume of stock-index related business is small. It seems unlikely, therefore, that these markets played any significant direct role in the crash in London.

In New York, however, a good deal of attention has focussed on so-called "trading strategies" or "program trading", of which two

forms appear to have been particularly important: index arbitrage between stock index futures and cash stock; and non-arbitrage strategies, notably the straightforward purchase and sale of futures instead of cash stock to take advantage of faster and cheaper execution, and "portfolio insurance" which, if implemented in the futures markets, involves selling futures as a hedge against a cash holding.

It has been argued that the extensive use of these trading strategies can give rise to a "cascade" effect: stock prices decline for some "external" reason; investors sell futures to lock in a price; the futures price falls in relation to the price of cash stocks; arbitrageurs buy futures and sell stocks; stock prices fall further; more futures are sold; more arbitrage takes place; and so on. In theory, arbitrage activity - by putting upward pressure on futures prices and downward pressure on cash prices - should limit and eventually halt this cycle. Furthermore, institutional rules in some markets - for example, the "short-sales" rules in New York - are also intended to choke off any incipient cascade effect. On the other hand, halts in trading in either the cash or the futures markets are likely to cause distortions both in stock indices and in arbitrage activity related to them, thereby perhaps interrupting the self-balancing arbitrage mechanism.

The role of derivative products in the US market crash seems far from clear. The Brady Report, for example, says that portfolio insurers and other institutions sold in both the cash market and the futures market, and that selling pressure was transmitted between the two by the mechanism of index arbitrage. The report concludes that, although index arbitrageurs were not the primary cause of price movements in the stock markets, they could be described as "the transmission mechanism for the pressures initiated by other institutions". The report commissioned by the New York Stock Exchange, and the SEC's more recent report, also conclude that the futures markets may have contributed to the speed of the fall in prices. On the other hand, the reports from the US futures exchanges present a rather different picture. The Chicago Mercantile Exchange, for example, argues that index arbitrage transferred to New York only a fraction of the total selling pressure experienced in Chicago and that, without the stock index futures markets, selling pressure on the NYSE would have increased and resulted in further price declines. It is interesting that the London Stock Exchange report, in the light of pricing anomalies between the cash and derivative markets, argues for greater use of index arbitrage in our markets.

These differences of view, or at least of emphasis, suggest to me that we should weigh the evidence of October very carefully before reaching any conclusions on what action, if any, should be

considered in London. It has been suggested that formal arrangements for trading stoppages should be instituted, and there may be something in the argument that if a market is going to be closed it is better done in an orderly and well-understood way, rather than coming about as the result of haphazard and unpredictable failures in the trading system. Equally, however, as the US studies recognise, closing one market may simply exacerbate the pressures on another. It is not at all clear that proposals for market closure, "circuit breakers" or limits on price movements, go any way to addressing the problem, rather than simply delaying or even compounding it.

Supervision

This carries me to the last of the three issues I identified, regulation and supervision. How much capital should be held against a particular "book" is a difficult matter involving many different considerations - some technical, some judgmental. But in most assessments, the price volatility of the securities involved is of key importance. The regulatory regime that we are now putting in place in the UK was conceived and legislated for wholly within the period of a bull market; that background may to some extent have conditioned views about what constituted "reasonable" or "likely" price variations. It is salutary, and perhaps in the long run healthy, that we have been reminded how violently markets can move just as our new arrangements are coming into force. Some may be inclined to dismiss October as a "one-off", which will not be repeated for a very long time. That may be true; but we cannot discount altogether the possibility that some of our domestic markets, perhaps as a by-product of improved liquidity, globalisation and technological change, have become permanently more volatile, and that this will have implications for the capital resources that participants must be required to maintain.

We have also to keep in mind the extent to which the bull market provided support for the earnings of securities houses. The much lower turnover since October, combined with the higher fixed costs that have been associated with the Big Bang reforms, have plainly impaired profitability and thus tended to weaken the general financial position of firms.

The question of capital adequacy did not, of course, arise all of a sudden with the crash: it had been debated widely and at great length before. Equally, another aspect of prudential supervision which the crash served to emphasise - the need to keep firm control of credit exposure - had been a focus of attention for some time.

In this context it is worth noting that one characteristic of the Stock Exchange account arrangements in London is that they can contribute to an accumulation of counterparty exposure. At the time of the crash, which took place in mid-account, such exposures, compounded with those represented by unsettled bargains from previous accounts, gave rise to worries in the market about a number of firms and clients - which fortunately in the event turned out to be misplaced. But in circumstances where the whole system is under strain, the likelihood of contagion is far greater if firms are disproportionately exposed to particular counterparties. Another feature of the present account arrangements worth examining is the extent to which they facilitate the shorting of stock. For both reasons, I believe that it might be helpful to reconsider the role of the account.

There is one further aspect of regulation which I will mention only briefly, as I have spoken about it at length on other occasions. One of the most important challenges facing financial regulators now is to reinforce procedures for domestic and international co-operation. This need is particularly acute in circumstances such as those of the crash, so that all concerned can establish an accurate and timely picture of what is going on. It was reassuring to see how quickly and effectively arrangements were put in place in October to reinforce this collaboration - both among domestic supervisors and between them and their counterparts overseas. We shall be building on those arrangements.

Conclusions

I have focussed this evening on the events in New York and London, and have suggested some features of interest and significance which would repay further study. I have not attempted to draw firm conclusions at this stage, and as I indicated at the outset I am wary of premature judgments in this area. But let me nevertheless venture now some brief observations on the experience of the past few months.

- First, I do not think we are being in any sense complacent in saying that the new dealing systems which came into being in London at the time of the Big Bang acquitted themselves well in October. Of course, not all of those who had piled remorselessly into equities in the previous three quarters could get out, all at once, at the precise moment of their choosing and at the price shown on the screen. But overwhelmingly, trading in London continued during the crash with little interruption despite extremely heavy volumes. This suggests, I believe, that in adopting a competing market-maker system, rather than one of the more formal and less flexible alternatives, the

/

Stock Exchange chose wisely. And while there were some understandable early hitches in the SEAQ system, its performance during October and November reflects very great credit on the Stock Exchange.

- Second, we should obviously be wary of the assumption that the hedging markets will enable risk to be laid off promptly and cleanly in all circumstances. More generally, I suggest that we should not allow ourselves to be unduly dazzled by the complexity and novelty of the derivative products markets, or to exaggerate their capacity to override fundamentals in the cash market. They may have changed the style and language of trading; and perhaps, too, the speed with which markets respond; but there may, I think, have been a tendency to overstate their impact. I would not wish to dismiss the dangers: but if we have been seeing some form of electronic stampede, we should remember that the "herd instinct" has always been a feature of stock market movements.
- Third, I have yet to be persuaded of the need to introduce artificial breaks in the markets. I can see that they might impose a semblance of orderliness, but this would have to be at the expense of what must be the key feature of any market, which is to provide liquidity.
- Fourth, the events of last year have reinforced very strongly my concern that we should promote much closer and possibly more formal links between supervisors internationally, both in the banking and securities fields. If the markets have become more complex and volatile, and if the risks are less than perfectly understood, then our concern as supervisors must be with the soundness of all the participants in the major centres.
- Finally, I have focussed very much on the market aspects of the crash. But I believe it would be wrong to portray what happened last October purely in technical market terms. Underlying the events in London, New York and Tokyo were, quite clearly, long-standing and deep-rooted concerns about imbalances at the macro-economic level, particularly of course the US fiscal and external deficits. Refining market mechanisms may be a way of addressing some concerns, but reducing these imbalances must I think be a pre-requisite of longer term stability.

I hope that in conducting this post-mortem I have avoided on the one side complacency and on the other undue alarm. In any event, I have certainly not been comprehensive, and there are many other

aspects of the crash that deserve examination. So far, at least, the financial system seems to have weathered the storm passably well; but there are certainly lessons in what happened that we should identify and study - and before an audience of MBAs that cannot be an altogether discouraging conclusion.