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FINANCE AND TAKEOVERS

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INQUIRY INTO CORPORATE TAKEOVERS IN THE UNITED KINGDOM

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The David Hume Institute has been commissioned by The Joseph Rowntree Memorial Trust to conduct an Inquiry into the issues raised by Corporate Takeovers in the U.K. This paper is the sixth of a series presenting the results of research undertaken in the course of the Inquiry, and also submissions of opinion received from individuals and organisations which are thought to be of wide general interest. The Institute hopes in this way to keep the public informed of work in progress. The Final Report will appear in the late Spring of 1991.

A note on the Institute and a list of its publications appear on pp .21-23.

The Institute has no collective views on any public policy question and is not committed to the views of any of its authors.

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1. INTRODUCTION

The classic detective story was based on the premise that to analyse a mystery one had to investigate motive, means and opportunity. Takeovers and mergers are no exception to this dictum but given that there has been ample opportunity to merge in the UK the focus of this paper is on motive and means. After a discussion of the motives for merger, the impact and consequences of the means are considered. It is frequently argued that the principal means of financing a takeover in the USA is debt, especially junk bonds. In consequence there has been a significant rise in the debt:equity ratio of companies. Indeed it has been argued that the great equity boom of the 1980s was partly caused by a shortage of equity thereby created. This may be gilding the lily but the phenomenon of a rising corporate debt:equity ratio has been clearly observable and is generally thought to be undesirable.[1] There are clear private gains from a substitution of debt for equity in some circumstances, see below, in part stemming from the anomalies of the tax system. There may even be gains to those administering monetary policy. A recent article in the Bank of England *Bulletin* pointed out that the impact of monetary policy became both greater and more predictable.[2] Against this, however, a rising debt:equity ratio may make companies less able or willing to finance real investment, especially risky investment. This, it has been been argued, is one reason for the decline of US competitiveness over the last 30 years, even though Japanese debt:equity ratios are up to ten times US levels, albeit with soft finance in many cases.[3] Moreover, in antithesis to the Bank's point, companies who are more subject to the influence of monetary policy are also more vulnerable to other shocks. In consequence the economy's natural defences to a recession have been reduced.[4] Although not unchallenged such an alarmist thesis has been widely accepted in the USA and is now part of conventional wisdom. Is it applicable to the UK?

2. Why do Mergers and Takeovers Occur?

Economists have debated the causes of takeovers and mergers at great length.[5] In essence, the argument is part of a more general argument about the theory of the firm. One proposition is that firms are run so as to maximise the welfare of their owners, usually the equity shareholders. Hence the goal of the top management of a company is to maximise profits and share prices subject to avoidance of excessive risk. This is called the neo-classical theory of the firm. The alternative, the managerial theory of the firm, argues that the top management of a company has considerable discretion to pursue its own objectives even when these are in conflict with shareholders' interests. Managers may be concerned with their own interests directly in the form of perks, luxurious offices and the wasteful trappings of office and power-christened "managerial slack" by Williamson. More likely their goals will be less crude but arguably more dangerous: size and growth of their organisation so as to maximise their prestige and influence - the Baumol, Penrose and Marris theories. The stakes are high in this debate in that nearly all defences of market capitalism rely upon the neo-classical theory being correct.

It is easy to see that theories of takeover can be based on the managerial approach, as Lord Vinson put it in the House of Lords in January 1986, "mergers are personal megalomania masquerading as corporate efficiency." Roberts (1987) claims that "it is top management rather than shareholders which has gained consistently from merger activity." Mergers and takeovers are likely to give a sense of purpose and even excitement to those carrying them out as well as the benefits in terms of status, prestige and more tangible gains that accrue from size and the aura of success generated by a merger or takeover. Service contracts, golden parachutes and compensation more generally are likely to mean that the board of the victim company do not suffer either. This approach presents a fairly grim picture of a cosy world in which managerial self-interest is pursued at the expense of social gain. It is a very plausible story but its very plausibility makes it necessary to challenge it. Moreover the trend of economic analysis in recent years has been to resurrect the neo-classical theory. A large number of devices, such as stock options, mean that the interests of board and stockholders are in harmony. The volume of complaints about City "short-termism" proves that managers are forced for good or ill to heed shareholders' preferences directly or through the effect of share prices. Moreover both systematic research and casual empiricism alike suggest that managers are assessed by and seek to maximise such goals as return on capital employed.[6] To defend a managerial view of takeovers it is necessary to argue that normal disciplinary devices do not apply in the case of takeovers, that the otherwise-applicable constraints are inapplicable. This may well be the case but it cannot be accepted without qualification or hesitation. At the very minimum it requires a careful analysis of the alternatives.

An even more cynical alternative has been offered or at least hinted at by Kay and Fairbairn (1989). This lays great stress on the fees and other benefits to city advisers from mergers and takeovers. This Kay-Fairbairn thesis is stated obliquely usually in the form of *dicta* so it is not clear how much it is an *ad hominem* argument and how much a serious thesis. It could easily be elaborated into a defensible proposition. When a service is purchased on the advice of an expert who stands to gain thereby there are obvious dangers that excessive quantities will be purchased. If an ill-informed consumer has to rely on an expert diagnosis, possibly to the consumer's disadvantage, the economic theorist applies the recent but well-established concept of asymmetric information and the principal agent models which embody it. Peacock originally suggested that this form of market failure applied in health economics and it has been extensively used by Maynard. Such a theory could be used in finance but again some scepticism is in order. Economics sometimes seems to be in danger of adopting sophisticated variants of conspiracy theories in a wide variety of applications. Alternatives must be clearly examined.

Traditional economic analysis of the motives for takeover highlighted the opportunities to increase profits by exploiting economies of scale or other gains from size. For example, this was the rationale for the establishment of the Industrial Reorganisation Corporation (IRC) by the 1964-70 Labour government. Mr Jay's speech introducing the 1965 Mergers Act was a paean to the virtues of size (Fairbairn and Kay, p. 195). That Jay's words were reprinted in the 1978 Green Paper, Hattersley (1978) shows the extent to which this view was enshrined in official attitudes. This approach was in marked contrast to Japanese attitudes where government policy sought to preserve competing firms even if economies of scale were sacrificed in the short-term.[6] Merger could also improve profits by reduced information and transaction costs, an approach pioneered by Williamson (for example 1985, 1987). His argument is that in some circumstances relationships are easier within a group than between two separate firms. This embraces not only dealings with suppliers or customers but also the argument than an external capital market (such as a stock exchange) may not allocate funds as well as an internal one: transfer of profits within, for example, the Hanson group to finance investment in other subsidiaries. This is enshrined in the business school jargon of cows (which produce cash) and stars (with investment opportunities).

Finally mergers may raise profits by creating monopoly power. Indeed the standard economic approach is to compare the cost savings with the social costs of monopoly, an approach pioneered by Williamson (1968). It has been argued that the wholesale price of whisky has been increased by 31% because Guinness acquired market power through its takeovers of Bells and Distillers.[7] Other economists argue that such gains are likely to be temporary in the absence of government backing (Friedman, 1953) or, at the least, substantial entry and exit barriers (Littlechild in Kay and Fairbairn (1989)).

Since Manne (1965), however, the principal focus of economic analysis has been "the market for corporate control." This argues that takeovers are essentially about which managers should run a company. If managers are inefficient then the price of their companies' shares will fall. Hence it will be profitable for better managers to take the company over and run it more efficiently and profitably. This argument makes the take-over raider a *deus ex machina* who will ensure that firms are run as efficiently as possible under threat of takeover. In consequence market capitalism will not suffer from, for example, the problem that managers exercise discretion to empire-build against the public interest. Hence there is a variety of reasons why profit-maximising firms should wish to takeover or merge with other firms. The problem with these theories is that they all suggest that mergers should lead to a rise in profitability. The evidence is that mergers rarely do this. Indeed in many cases the effect of mergers and takeovers is to reduce profitability. Hughes (in Kay and Fairbairn, 1989) surveys the UK literature to this effect; of these studies the best known are Singh (1979) and Meeks (1977)'s evocatively-entitled *Disappointing Marriage.* US evidence is similar. For example Ravenscraft and Scherer (1987) not only survey existing evidence but analyse some 6,000 mergers statistically and 70 by case study analysis. Their conclusions are devastating: a small but significant post-merger profitability decline. In both the UK and USA many mergers and takeovers are followed by sell-offs, either buy-outs, usually leveraged or to other groups. The significance of these is emphasised by both Chiplin a variety of studies for the UK[8] and by Ravenscraft and Scherer (1987). In the US about a third of business units acquired are subsequently sold-off. In these cases profitability fell from 20% rate of return prior to the original takeover to 4% prior to the sell-off. The market in corporate control seems to have turned many of the stars of American industry into dogs. All-in-all the conclusion of Fairbairn and Kay (1989) seems well-founded: such studies have given little support to the view that merger enhances profitability. Strictly, of course, the fact that mergers do not lead to increased profits does not mean that they were not motivated by a *hope* of increased profits. Either managers are congenitally optimistic or mergers are not motivated by profit-maximisation. Mergers could also be caused by desire to reduce the variability of profits or as a response to a more risky environment generally, Newbould (1970). This would not violate the neo-classical theory. Nevertheless the evidence of the impact of merger on profits does cast grave doubt on the argument that there are neo-classical motives for mergers.

This hypothesis has been challenged indirectly by use of stock exchange data. Firth (1976, 1979) pioneered this approach in the US. The latest studies are by Franks and Harris (summarised in their contribution to Fairbairn and Kay (1989)). The argument is that if the stock market value of a merged company is greater than the value of its components, a merger must be in the interests of at least one set of shareholders and therefore consistent with neo-classical theory. The evidence is clear that shareholders of acquired companies gain from merger. It is also clear that the shareholders of acquiring companies do not lose and probably gain in both the USA (Jensen and Ruback (1983)) and the UK (Franks and Harris (1986) Franks and Mayer (1987)). Such results seem well-established although they contradict some earlier studies.

Hence the evidence seems to suggest

a) that mergers do not increase the underlying profitability of companies but

b) do increase stock exchange values.

This leads to the proposition originally advanced by Firth (1976, 1979): many mergers are "financial" in motivation. A financial merger is simply one which is in the interests of shareholders (hence in accord with neo-classical theory) but does not raise profits. Firth originally estimated that 50% of mergers are financial. Such precise figures can never be finally established but the general conclusion seems well-founded: many mergers are financial.

This does not deny that many are managerial and some motivated by a desire to reduce risk or a mistaken hope of increasing profits. It is conceivable that some mergers have mixed motives. For example, managers might merge for managerial reasons whenever they can find an opportunity to do so without harming shareholders' interests. However many caveats one enters, the crucial conclusion remains, there seem to be many financial mergers.

3. FINANCIAL MERGERS

In a world of perfect certainty without taxation a financial merger would be impossible. Share prices would equal the net present value of future profits so share prices and underlying performance would never diverge. Financial mergers accordingly are either a consequence of uncertainty or depend upon some feature of the tax system. Similarly in a world of perfect certainty and no taxation neither a companies' debt:equity ratio nor its pay-out ratio would be of any relevance to share prices: the Miller-Modigliani theorem. Once risk and tax are introduced, the theorem ceases to hold. Hence the motive for a financial merger may be to change either of these ratios. If company A has a debt:equity ratio which is too low it faces legal constraints in repurchasing its own equity. Indeed this was virtually impossible prior to 1981. Instead it can take over company B and finance the takeover with an issue of debt or by offering loan stock to company B's shareholders. In this way it has effectively increased its debt:equity ratio. A cash takeover of another company is an alternative use of funds to a dividend payment. Rather less obviously another alternative to a dividend pay-out is to be taken over for cash, since both give cash to the shareholders. If the shareholders were to invest part of the cash and treat part as income then the effective position would be as though they had received a dividend payment on the original shares. The disturbing feature of these manoeuvres is that they may involve real costs to society - the cash takeovers in the above examples may be harmful to operating profits and still be in the interests of shareholders so long as the gain from the financial reorganisation exceeds the real cost.

A large number of theories exist as to why mergers may be induced by tax advantages. In the USA analysts have concentrated on the apparent tax advantages of debt finance over equity. Interest on debt can be offset against taxable profits by a company whereas dividend payments cannot be so offset. In consequence, there is double taxation of dividends: dividends are taxed in the hands of shareholders even though they have been paid out of taxed profits - a feature of the tax system slightly mitigated in the 1986 Tax Reform. It is clear that such an apparent tax advantage has inspired many US takeovers. In the UK the tax system did not discriminate so blatantly against dividends except 1965-71 and to a lesser, but variable, extent prior to 1958. However, dividends have been taxed in the hands of shareholders at rates up to 98%. If dividends were converted to capital gains the tax rate varied but was always less - usually a maximum of 30%. Tax reform in the 1980s narrowed this differential but did not eliminate it - not even in practice in 1988. Tax discrimination therefore gives shareholders an incentive to seek returns in forms other than dividends. This means they may prefer to see profits used to purchase other companies than distributed to shareholders. In effect the company becomes an investment trust designed to tax-shelter shareholders' income. More likely they will prefer to see potential dividends accrue in the company and then see the company taken over. In this way they can realise their gains without paying income tax. A variant of this occurs when a company's shareholders, perhaps a group of entrepreneurs, compare the prospects of cashing-in by selling the company with the usufructs of continuing to own it. Sale offers not only the advantages of a bird-in-the-hand but also the pleasures of tax avoidance. Not surprisingly therefore management buy-outs usually presume a relatively quick sale of the company. The market in corporate control may be merely a market in tax shelters. The seller may also wish to take securities rather than cash so as to defer even capital gains tax. To satisfy him or her such securities need to be liquid and easily marketable. This gives an incentive for takeovers to be in the form of loan stock or for the acquirer to be a large well-known company. This may explain the phenomenon of small efficient companies being taken over by large ones who run them with no great success - indeed on average with a worse performance: Ravenscraft and Scherer (1987) and various UK studies by Chiplin - summarised in Kay and Fairbairn (1989) pp. 116-133. The most rigorous version of the tax-induced merger is King's trapped equity model, summarised in his contribution to Kay and Fairbairn (1989) pp. 103-110. This model has been criticised - see Mayer (1988). The precise form of such tax models may be open to question but the argument that the tax system provides an incentive for merger seems beyond question. Tax reform in the 1980s has reduced this incentive both by reducing marginal tax rates and by removing some of the motives for selling a company, such as the previous penal treatment of close companies. Nevertheless, a significant incentive to takeover or be taken over remains. Certainly a large proportion of past mergers and takeovers have been an indirect consequence of the tax system.

The previous discussion has touched on another reason for being taken over - the advantages of owning shares in a large company which are easily marketable. In theory, all shares can be sold easily on the International Stock Exchange but in practice shares in small companies (especially in large quantities) cannot always be sold; as exemplified by the period after Black Monday when dealings in "gamma" and "delta" stocks ground to a halt: on one day in March 1988 there were only 27 deals in such shares. Hence shareholders in small companies might find their investment more attractive after a takeover. This emphasis on shareholders in acquired companies is deliberate. Nearly all mergers and takeovers are agreed and even in contested takeovers the shareholders choose to sell. Hence it is necessary to examine why shareholders gain from selling. In many cases a takeover premium may be sufficient explanation but not always. Even in this case one must ask why the assets are more valuable to the new owners. The argument here is that it is because in some cases they are worth less than their intrinsic value to the existing holders because of tax disadvantages or because they are illiquid.

Another way in which a takeover may boost share values is by transferring assets from unfashionable to fashionable ownership: christened the PE game in the USA (see Adam Smith's (1968) racy but perceptive survey pp 165-78). Different companies have different P:E ratios on a stock exchange, that is they sell for different multiples of profits (earnings) - hence price earnings ratio. In principle, such differences reflect stock market participants' reflections of the different potential of different companies. In practice it is clear that the ratios are bad predictions of future performance - see Leroy's (1990) survey. In consequence there is always an above-average return to be made by buying companies with low PE ratios. This provides an incentive to takeover such unfashionable companies - as demonstrated by Lord Hanson, BTR and other experts at this activity. However, there is also an incentive to sell if shares in unfashionable companies can be converted into fashionable ones. If company A has a P:E ratio of 10 and profits of £1 million its value is £10 million. Suppose company B has a P:E ratio of 30, then if company A were valued at B's ratio it would be worth £30 million. In many cases this can be achieved by B taking A over so long as A is sufficiently larger than B: the P:E game pioneered in the UK by Slater Walker; Raw (1977). All that then remains is for the negotiation of the division of the gain of £20 million between the shareholders of A and B. The Efficient Markets Hypothesis argues that if there is an anomaly in share prices then dealings will occur until the profits from the anomaly disappear. Difference in P:E ratios provides a long-standing and well-established anomaly. Takeovers are one way to profit from the anomaly. Hence there are lots of takeovers? Certainly this theory like all financial-merger theory is consistent with a key fact: takeovers occur in waves related to share price movements.

Neither the simple managerial self-aggrandisement nor profit-maximisation theories can do this. The managerial theory has a theory of why mergers are concentrated. Size is the best protection against takeover. Hence if one takeover occurs in an industry, all other firms become relatively smaller and hence more vulnerable to takeover. They therefore takeover other firms to offset this danger. This does not lead to a share-price-driven takeover, however. Most recent studies suggest that there is excess volatility in share prices, that is they vary by more than is justified by variations in efficient forecasts of changes in fundamentals, see the discussion in Lacker and Weinberg (1990). The latter authors develop an elegant data-consisting model linking takeover activity to this excess volatility. Such an approach may well hold the key to the cycles on takeovers and mergers.

There are two other "financial" motives for taking over or being taken over but all are dubious in one or other sense of that term. An alleged benefit of takeover is that shareholders acquire shares in a diversified company. The connection between takeover and diversification is in practice less clear-cut than casual observation might suggest. If a tobacco company buys an insurance company (BAT - Eagle Star) diversification does occur. However, such mergers are not the only route to diversification and the role of merger in promoting diversification is relatively low, see Hughes survey in Kay and Fairbairn (1989) and Ravenscraft and Scherer (1987). More seriously, however, it is not clear why shareholders benefit from diversification *in this form*. Shareholders can hold shares in a variety of companies. Such "home-made" diversification is superior on many counts to holding shares in a diversified company. The shareholder can obtain wider diversification and, more significantly, can choose whatever pattern of diversification suits his or her objectives. Diversification through merger compels a shareholder to accept a particular form of diversification - insurance-tobacco, for example, that he or she may not want. It is as if supermarkets said that few people wanted to buy only baked beans so they were going to sell baked beans in combination with cheese. It seems unlikely that consumers would flock to such a supermarket or by extension pay more for the combination than they would for the two goods separately. For exactly the same reasons, why should the stock market value shares in a diversified company at more than its separate components? It is conceivable that such a company might be able to borrow more cheaply than a specialist one. Otherwise, the only advantage of diversification through a company is minimisation of transaction costs, *in extremis* that a shareholder's wealth may be such that he only holds shares in a few companies. As most shares are held by institutions this argument cannot apply. Indeed diversification is a principal function of *financial* intermediaries such as unit trusts, investment trusts, insurance companies and pension funds. It seems unlikely that share values have in practice been raised by diversification by operating companies. The current fashion for de-merger confirms this. Diversification may have been a motive for many mergers but it is unlikely to have been the explanation for the observed fact that *on average* mergers benefit shareholders without improving underlying performance.

The least socially-desirable motive for financial merger stems from creative accounting. The method is to boost profits artificially by exploiting anomalies in accounting - for example charging current expenditure as capital expenditure. The higher "profits" should boost the share price of the company. Whilst share prices are artificially high it would be optimal to sell them either directly (ie taken over) or indirectly (by takeover that is used to buy high quality assets with dubious paper). It is easy to describe such activities - Smith (1968) is perhaps the most amusing as well as one of the earliest. For very obvious reasons it is extremely hard to discuss how frequently it occurs in practice. Ravenscraft and Schere (1987) have come closest by looking at the relationships between takeover activity and accounting practice but this was done for other reasons. Raw (1977)'s brilliant journalistic study of Slater Walker suggested that this was a motive for Slater

Walker's frenetic activity. In general, however, there is little evidence either way. Those who like a good story will tend to find the theory more convincing than more sober-minded individuals.

Finally, it is necessary to underline and emphasise a point made earlier *en passant*. Takeovers frequently change the debt:equity ratio of a company. Even if two companies merge by an exchange of equity the debt:equity ratio of the new company differs from that of the two previous companies, being a weighted average of the two. A company can be acquired directly or indirectly by a share issue - that is one's shares can be sold to a third party to finance the takeover instead of being directly exchanged for the shares of the acquired company. In this case the debt:equity ratio falls. Similarly a company can be acquired by issuing debt directly or indirectly. In this case the debt:equity ratio rises. Companies have frequently been acquired because they possess cash or liquid assets. More often takeovers have been inspired by assets which provide good collateral - perhaps for further takeover. The first publicised takeover tycoons, Clore and Cotton, in effect sought to change debt:equity ratios. Sears, for example, owned freehold stores. After takeover this was sold and leased-back. Debt in effect replaced equity. The final outcome depends upon what is done with the funds obtained from sale and lease back. Necessarily the gross debt to equity ratio rises but if the company invested all the proceeds in liquid assets the net one would unchanged. Two propositions seem incontrovertible.

a] Takeover and merger have a massive effect on corporate debt:equity ratios and financial structures more generally. This will occur mainly at the level of the individual company. The aggregate effect may usually be small, as in the UK, because different takeovers have different effects. Alternatively it may be large, as in the USA.

B] Companies have optimal debt:equity ratios, and optimal financial structures generally. Companies

> might have sub-optimal debt:equity ratios for a variety of reasons, including the inflation of the 1970s, the changes in financial markets in the 1980s or simply historical accident. They seek to attain these by various means.

It seems reasonable to conclude that a] may be a means to achieve b] although strictly the proposition does not follow logically.

4. CONCLUSION

In summary, I would argue that the evidence suggests most mergers are financial, that is shareholders benefit without an improvement in underlying performance. This does not deny that other motives exist of which "managerial" goals are probably the most important. Tax, stock exchange anomalies and sub-optimal debt:equity ratios are probably the most important reasons for "financial" mergers.

The implication seems to be that mergers are unlikely to be socially beneficial. In this case, of course, the conclusion is that the time, effort and resources devoted to merger and takeover would have been better devoted elsewhere. This reinforces a general conclusion of economists that internal growth by a company is more likely to be beneficial to society than external growth through takeover. Kay and Fairbairn (1989) p. 14 dramatically contrast the takeover boom of the 1980s with net negative capital formation by UK companies. The implicit connection is clear - companies have taken over other companies rather than invest in new plant, machinery etc. The author has considerable sympathy with such an approach but the main focus of the present paper is narrower: Do the changes in financial structure and financial mergers matter in themselves?

It seems that the form in which a merger is financed does have a significant effect on its chance of success: Franks and Harris (1976) Franks and Mayer (1987). The argument is that debt-financed takeovers are more successful in practice, than either cash or equity-financed ones. The usual rationale for this is the incentive provided by a high debt:equity ratio. The risk of bankruptcy is much greater for a company with a high debt:equity ratio. At the least, a small fall in profits is likely to trigger off a need to renegotiate interest payments etc. Since profits will no longer cover debt service and necessary investment, such renegotiation is likely to be unpleasant in itself and may very well lead to the dismissal of the management. Hence a high debt:equity ratio is likely to pose the following choice to management: succeed or lose your job. This negative incentive is likely to be reinforced by monitoring by and positive assistance from lenders anxious to obtain their money back. Moreover the rewards of success are likely to be greater in a highly-geared company - for example if the managers have shares in the company or stock options. Gearing increases both risk and rewards and hence sharpens incentives. Hence the results are supported by a plausible theory. Nevertheless casual empiricism suggests that the pressure of excess debt may be too large: Magnet, Queensway etc. A recent study confirms this by finding that while leveraged buy-outs originally outperform other companies their later performance is certainly no better than other companies.[9] It may be that a high debt:equity ratio encourages the pursuit of short-term profits at the expense of longer-term goals.

US evidence suggests that the economic theorist is right to presume that highly-leveraged companies are less resistant to recession. In general, when economic conditions turn down, a highly-leveraged firm will find itself forced to reduce inventories and cut its investment programme to meet interest payments and so intensify the recession. A company without such high gearing will not face such pressure. US authors seem convinced that the takeover boom has increased the average debt:equity ratio sufficiently to make this threat a reality. In the UK the evidence is less clear-cut despite a study by the Bank of England. Through the 1980s UK companies borrowed very heavily but invested the proceeds largely in bank deposits. Hence the gross debt:equity ratio rose substantially. However, if debt is measured net of borrowing, the debt:equity ratio showed little change. This position changed rapidly in 1988-9 when the Corporate Sector swung into a large deficit and its financial position worsened. The Bank pointed out that this made it more susceptible to the influence of monetary policy as well as less recession-proof. The replacement of fixed rate debt by variable rate debt was another feature of the 1980s. This certainly increases the leverage of monetary policy, but its other effects are less clear-cut. Against this background, one can attempt to assess the role of takeover. The Monopolies and Mergers Commission studied the problem in 1986 in the context of the IXL bid for Allied Lyons. They found that this bid was not contrary to the public interest despite its highly leveraged nature but declined to offer definite conclusions on the more general issues.

Even with the benefit of five more years it is difficult to go beyond their conclusion at a general level. Takeover and merger activity does not seem to have raised debt:equity ratios significantly (the Bank studies) and, moreover, the *average* debt:equity ratio does not seem to be dangerously high. The significance of merger, takeover and sell-off activity in the 1980s has been to change the distribution of debt:equity ratios markedly. Some companies are now much less geared than their predecessors were, whilst others are much more geared. In brief the effects of takeover and merger on corporate financial structures are amongst their most significant effects. It is difficult to delineate these with any degree of precision. An important one has been to put further emphasis on finance within companies. Since Keynes' brilliant chapter 12 (1936) commentators have been concerned that the finance tail wagged the operating dog. In various forms the argument is that too many resources are devoted to finance and that "short-termism" is imposed on business. It is not possible to analyse this debate here, still less to resolve it. What does seem to be crucial is that the takeover boom has heightened its importance.

NOTES

[1] See Friedman (1989), Kaufman (1980) and Borio (1990).

[2] Bank of England Quarterley *Bulletin* Vol. 30, No. 2, (May) pp. 198-214.

[3] A point first made in NEDO (1975, 1975 (a)). See Borio (1990) for more recent data.

[4] Kaufman (1986) is the *locus classicus* for this view.

[5] See Fairbairn and Kay (1989) for a modern survey; different papers within the book present different perspectives.

[6] See the discussion in Gowland and Paterson (1990). The most important modern study is Francis (1980, 1983).

[7] *Business Life,* No. 26 April/May 1990 pp. 51.3.

[8] See his contribution to Fairbairn and Kay (1989) and the bibliography thereof.

[9] By Professor Houlden, commissioned by Touche Ross.

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