The growth opportunity proposition

Business, Company

The alternatives for payment methods used in M&A deals, to some extent, depend upon the acquiring firm's growth opportunities. A most detailed study in thisrespecthas been done by Martin (1996), who attempts to explore the relationship between the means of exchange used in M; A transactions and the firm's growth opportunities. Initially, Martin exams a sample data covering 846 US acquisitions for the period from 1979 to 1988 by applying the traditional market model to calculate the mean values of data variables which are grouped by the three payment methods.

The findings show that the CAARs obtained from using variables such as institutional ownership of ordinary shares and some other leading economic indicators are not statistically different at 10% level. This result suggests that the medium of exchange in acquisitions is not significantly affected by these variables. Furthermore, Martin employs multinomial logit regression analysis to examine the growth opportunity proposition in acquisition financing.

He uses Tobin's q-ratio, the ratio of the market value of a company's debt and equity to the current replacement cost of its assets, to measure the firm's growth opportunity. It is often thought that firms have an incentive to invest when q is greater than 1, and they will stop their investment when q is less than 1. The results show that the coefficients on q are positive and highly significant in his model, which is regressed by testing the relationship between growth opportunity and share financing.

The findings, therefore, have confirmed his proposition that acquiring firms with greater growth opportunities are more likely to use share exchange as

the payment method in acquisitions. A possible interpretation of this is that the acquiring firms would need more cash (if available) under such a circumstance to satisfy their growth opportunities. The Relative Size Proposition The previous studies on the impact of the relative size of target to bidder on payment methods are not consistently confirmed.

It is viewed by some researchers that the bigger the size of the target firm will lead to the acquirer more likely to use share financing in M; A deals; while for some other studies, this hypothesis has been rejected. In the study by Grullon, Michaely and Swary (1997), this theory is tested in great detail. They examine 146 US bank mergers for the period between 1981 and 1990 by applying a multinomial logit model to explore the determinants of payment methods. The variables to be tested in a logit regression include the capital position of the merged banks, the relative size of targets, and the return on equity of both parties.

They find that share exchange or a combination of share and cash financing is more likely to be used in mergers where targets have high capital adequacy relative to the bidders as indicated by higher log odds ratio of share-to-cash and the combination-to-cash which are 2. 12% and 1. 87%, respectively. With regard to the relative size effects on the choice of payment methods, Grullon, Michaely and Swary find that the bigger the relative size of the target to the acquirer, the more likely the merger is financed by share or the combination but not cash only.

This result has confirmed their hypothesis that the relative size of the target to the acquirer is positively related to the choice of share financing in M; A

deals. However, in conflict with the findings by Grullon, Michaely and Swary, Martin's (1996) results show that the target's relative size, which is measured by the ratio of the amount paid for the acquisition to the sum of the market value of equity as of 20 trading days just before the announcement date and the amount paid for the acquisition, is not significant at the 5% level in any of his regressions.

He draws the conclusion that the target's relative size does not differ significantly between the methods of payment used in acquisitions. This result suggests that there is no clear and close association between relative size and acquisition financing in mergers and acquisitions. A study by Ghosh and Ruland (1998) present the same results as Martin's (1996), regarding the relationship between the relative size and the choice of acquisition financing.

Similar to Martin (1996), Ghosh and Ruland also analyze the impact of relative size as well as other factors on the likelihood of a particular payment method used in acquisitions. Their findings show that the target's relative size does not differ significantly for the payment alternatives in their logit model. The possible interpretation of their results is, according to the authors, that when target size is relative large compared with the acquirer's, the target management would prefer negotiating for share financing in order to maintain their interest and influence in the combined company.

Meanwhile, the acquiring firm's managers prefer paying cash in order not to dilute their existing ownership in the firm. The payment alternatives are, therefore, offset by those two different motivations between the

counterparts. As a result, there is no clear sign indicating the linkage between the relative size of the two parties and payment methods chosen in M&A transactions. Business Cycle Proposition In the study by Martin (1996) described earlier, he has also attempted to analyse the impact of business cycle conditions on the methods of payment used in acquisitions.

The business cycle variables in his study include changes in the Standard and Poor's 500, index changes in Moody's BAA bond yield, changes in the index of 11 leading economic indicators and changes in industrial production. The results of his logit regression analysis show that only the variable of Standard and Poor's 500 is consistently significant with predicted positive sign, with regard to share financing. As for the other variables studied in the model, they are all not in line with the predicted signs in terms of their relationship with acquisition financing.

As a result, based on Martin's findings, the good performance in overall stock market gives rise to share financing more preferably. As we have seen there is much literature on the issue of payment methods in corporate acquisitions. However, nearly all of the previous research focused mainly on US takeovers; little analysis in this respect has been made on the UK market. In search of the relevant articles dealing with the UK, we find that the studies, which have been involved systematically in investigating the choice of payment methods based on the UK market are quite few.

Among those excellent UK studies, the post-acquisition performance for bidders as well as targets has been examined extensively. Few analyse the specific area of the determinants of the payment methods except for one by

Harris, Franks and Mayer (1988). As reviewed above, in their study, Harris, Franks and Mayer made a comprehensive comparison in terms of means of payment in takeovers between the US and the UK. They attempted to explore the impact of taxation and asymmetric information on the choice of payment methods.

The authors found no satisfactory explanation for their findings in terms of the tax effects on payment methods used in M&As. Theories of acquisition financing present some propositions in terms of the payment methods. Some of them appear to have been confirmed while the others are far from being conclusive. Taking the relative size hypothesis as an example, the inconsistent results in respect of methods of payment studies motivate us for further scrutiny. Meanwhile, based on the study of the UK market, in this paper we attempt to illustrate the issue further on the determinants of payment methods in M&A.

3. Testable Hypotheses As outlined above, a number of hypotheses have been advanced to explain the choice of payment methods, given some alternatives in M&A deals. The suggestions presented by these previous empirical studies indicate that the payment methods chosen in M&A transactions might be related to information asymmetry, taxation, M&A regulations, accounting treatment, and some other factors in terms of both acquirer and target's financial performance. However, these key elements, on which payment methods are generally considered dependent, do not hold in any circumstances.

Moreover, empirical results from testing the hypotheses are quite different among the previous studies. The inclusiveness in this respect, therefore, provides support for further scrutiny in this paper - some key elements will also constitute the foundation for related studies. Summarising the literature and considering the current state of research in the area, we propose to test the following set of hypotheses with specific reference to the choice of payment methods in M; A.

We feel that to organise and test the hypotheses in a systematic way will help achieve consistent results. Hypothesis 1. The Relative Size Hypothesis - The bigger the size of the target relative to the acquirer, the more likely the share financing is used. This hypothesis is based on the proposition of Martin (1996), Ghosh and Ruland (1998) and Grullon, Michaely and Swary (1998). In view of the inconsistent results among them, this study proposes further investigation into the exchange mediums chosen in M; A deals with regard to the relative size hypothesis.

The relative size in this study is measured as the ratio of the target assets (or market value of its equity) to those of acquirer's. It is a quite popular view that the bigger size of the target relative to the acquirer will make share financing more preferably. The possible interpretation about this viewpoint is that the managers in target firms under such a circumstance have more power to bargain the payment methods with the acquirers; and if they want to retain their job and influence in the combined firm, share exchange must be an ideal choice for them.

On the other hand, if the target firm is a relatively bigger one, the acquirer has to choose share financing since there will be no sufficient cash tofinancethe deals. This is also what our analysis suggests. Hypothesis 2. The Management Ownership Hypothesis - The greater the share ownership in both parties, the more likely cash financing is used. The percentage of equity held by management and insiders must be related to the payment methods used in acquisition financing.

Stulz (1988), Amihud, Lev and Travlos (1990), and Song and Walkling (1993) have attempted to explore the relationship between the choice of payment methods and management ownership, but their studies in this respect focus either on the target or acquirer but not on both simultaneously. A more detailed study by Ghosh and Ruland (1998) confirmed hypothesis 2, which is based mainly on the US acquisition market. Possible differences concerning M&A activity between the two markets deserve a closer attention on this phenomenon. Hypothesis 3.

The Free Cash Flow (or Cash Availability) Hypothesis - Sufficient free cash flows in hands by acquiring firms lead to the acquisition deal being financed by cash This hypothesis is based on the premise that the acquirer has sufficient cash flows in hand but few profitable investment opportunities. Under such a circumstance, with everything else the same, a cash offer tends to be employed in the M&A deals. The acquirer's free cash flows could be obtained from the Free Cash Flow Account; and it can also be measured and reflected by Dividend Payout ratio - a higher payout might signal the higher level of free cash flows.

We employ the latter in this paper to test the hypothesis. Hypothesis 4. The Target Prior-acquisition Performance Hypothesis - Bad performance in this regard gives rise to cash financing more preferably Bad pre-acquisition performance of the target firm means that the target is poorly managed. Under such a case, the acquirer is more willing to use the cash financing in order to eliminate the inefficient management of the target firm. For convenience of the analysis, the target firm's pre-acquisition performance is measured by its Return on Equity (ROE) just before the announcement date.

Hypothesis 5. The Stock Market Performance Hypothesis - Good performance of the acquirer on the stock market makes share exchange more preferable in M&A deals The booming stock market means the buoyant profitability of the firms. In this situation, the acquirer prefers to use share exchange financing the deals and; on the other hand, the target is also willing to accept the share exchange since it seems extremely attractive when offered as the considerations of the payment methods. We use the Market-to-Book ratio as the measurement of acquirer's stock performance.

4. Data Sample and Descriptive Statistics 4. 1 Description of the Data Sample The data set and announcement dates used in this study were collected from Excel's publications on Takeovers, Offers and New Issues and the various issues of Acquisitions Monthly for the period between 1990 and 1999. There were a total of 807 mergers and acquisitions taking place in the UK during this period. We delete a total of 117 lapsed bids and a total of 161 bids unavailable of payment methods in terms of the three alternatives examined in the study.

Additional 86 observations in the meantime are removed from the initial sample because they are either non-UK public companies or private ones. That means, to be included in our sample, all takeovers for both the target and acquiring firms must be listed on the London Stock Exchange during the sample period. This restriction allows us to use Datastream and therefore to help ensure sufficient data for both targets and acquirers. Finally, 340 bids have to be dropped due to unavailability of relevant data.