# Methods of Payment, Direct Takeovers and Privately-Held Targets: Evidence of Bidder's Return on Takeovers

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#### ABSTRACT

This study examines whether the proposed acquisition announcement on methods of payment has an impact on the bidder's returns behaviour. The analysis uses the event study technique, the naïve model, a model that is based on the market model with constrained  $\alpha = 0$  and  $\beta = 1$  to compute the abnormal returns and to evaluate the effects of the proposed acauisition announcement on the bidder's returns. The study finds that Malaysian investors appear to be not in favour of cash-based acquisition to be done directly by the bidding company as shown by the significant negative results on the bidder's average residuals after the announcement date. The same goes for acquisition that targets private limited company. The insignificant results obtained on the announcement date itself may give an indication that such announcements do not really bring "surprisingly good news" to investors. However, the significant positive results of the bidder's average residual on acquisition by equity on and after the announcement, either to be done directly or on private limited takeover, may give an implication that the use of equity conveys favourable information about the bidding firms and are value relevant.

#### ABSTRAK

Kajian ini menguji sama ada pengumuman tentang cadangan pengambilalihan mengikut cara membayar mempunyai kesan terhadap kelakuan pulangan syarikat pembida. Teknik kajian peristiwa berasaskan model pasaran dengan konstren  $\alpha = 0$  dan  $\beta = 1$  telah digunakan untuk mengira pulangan luar biasa dan menilai kesan pengumuman cadangan pengambilalihan itu ke atas kelakuan pulangan pembida. Kajian mendapati, pelabur di Malaysia pada amnya tidak berkenan dengan pengambilalihan secara langsung berasaskan tunai sebagaimana yang ditunjukkan oleh keputusan negatif yang signifikan keatas purata sisa pembida selepas tarikh pengumuman. Kesan yang sama ditunjukkan bagi pengambilalihan yang mensasarkan syarikat sendirian berhad. Pulangan luar biasa yang tidak signifikan pada hari pengumuman menunjukkan bahawa pengambilalihan tidak sebenarnya membawa berita baik yang menggemparkan kepada pelabur. Walaubagaimanapun, hasil keputusan pulangan luar biasa yang positif dan signifikan keatas pengambilalihan secara ekuiti pada dan selepas hari pengumuman, sama ada secara langsung atau pengambilalihan keatas syarikat sendirian berhad memberi petanda bahawa pengambilalihan melaluu ekuiti membawa berita baik dan memberi kesan nilai kepada pembida.

# INTRODUCTION

A persistent pattern in the literature on mergers is that target firms earned abnormal positive returns during the announcement period. Nevertheless, evidence on the bidder is not clear and in fact is contradictory. In reviewing the evidence on returns to acquiring firms over immediate bid announcement period, Jensen and Ruback (1983) draw the conclusion that the target firms' shareholders would benefit and bidding firms' shareholders do not lose. However, the findings by Travlos (1987) on the impact of methods of payment on both bidders and targets have great significance both for theory and practice. For the bidding firms, Travlos finds significant negative abnormal return when stock is used as the method of payment and only normal rates of return when their firms pay cash in a takeover. Bugeja and Walter (1995) find that Australian bidders that offer shares (cash) earn significantly positive (negative) abnormal returns over the period (-60, 1) days.

Franks, Harris and Mayer (1988) compare the effects of means of payment in takeover for the United Kingdom as well as the United States. They find that acquired firm returns are higher for cash offers than for all equity offers both in the United States and in the United Kingdom. For the event month, the effects are stronger in the United Kingdom. For the period encompassing four months prior and one month after the event month, the effects are about the same in both countries. For bidders during the event month, all cash offers yield small positive abnormal returns that are statistically significant in the United States, but not in the United Kingdom. For the longer period of analysis covering months -4 to +1, cash offers yield small positive abnormal returns that are statistical significant in the United States and the United Kingdom and have some statistical significance. All equity offers carry no statistical significance.

Hirshleifer (1995) quoted four key factors that have been emphasized by theoretical research on the means of payment. He also noted that a stimulus to the theoretical research has been evidence of lower bidder and target returns for stock offers than for cash offers. The four key factors are as follows:

- (1) value of equity in limiting overpayment;
- (2) equity is cheaper for a bidder that is overvalued, or whose valuation of the target is low, so the offer of cash instead signals high value or valuation;

- (3) the use of equity to exploit the target's information; and
- (4) tax advantages of equity.

In the US, tax-free status depends on at least 50% of consideration being in the form of equity; many offers occur at or near 50%.

Chang (1998) examines, amongst others, the bidding firm's stock price reaction at the announcement of a takeover proposal when the target firm is privately held. He finds that on average, bidders offering common stock have positive abnormal returns, and bidders offering cash have a zero abnormal returns.

Private companies are typically controlled by a large shareholder who participates closely in management (La Porta, Lopez de Silanes & Shleifer 1999). Bidders do not offer shares when they believe their shares are undervalued and targets only accept cash when their private assessment of their own share value is less than the offer.

The takeover, merger and acquisition activities in Malaysia are quite dynamics. Their number, pattern and philosophy are mostly being influenced and shaped by the rapid development of the merger and acquisitions activities in the developed capital market around the world. However, in Malaysia, the studies on this subject are mostly centred around the affected companies, share price behaviour in response to the acquisition announcement (Fauzias 1992; Fauzias 1993; Mansor 1994). Other related of the studies include the motives for company to engage in acquisition (Fauzias & Takiah 1986). Accounting based measures performance on the target firms before and after the acquisition exercise (Fauzias & Shamsubaridah 1995) and the prediction of takeover targets (Fauzias & Mariah 1998; Ruhani & Gupta 2000) and bidders (Ruhani & Gupta 2000) based on past financial performance.

Though most of the past studies examined and compared the effects of the acquisition announcements between those acquisitions that are to be settled by cash and those that are to be settled by shares on both the bidding and target firms' stock returns behaviour, this study attempts to explore further by looking at the effects of the proposed acquisition announcements on the bidder firm price behaviour that are to be settled by cash and by equity in two different perspectives.

First, it looks into whether the manner in which the acquisition is to be made affects the bidder firms' returns behaviour. This is done by segregating the sample collected into two parts i.e. direct acquisition and indirect acquisition. Direct acquisition refers to an acquisition that involves the bidding company acquiring directly by itself whilst indirect acquisition is an acquisition that is made indirectly via the bidding company's subsidiary. Secondly, the study explores to see if the types of firms to be acquired could also contribute to shape the bidder firms returns behaviour. For this purpose, the firms of which acquisitions are targeted for in the same sample are divided into private limited and non-private limited companies.

# DATA AND METHODOLOGY

The study takes into account all announcements of the proposed acquisition by cash and equity by the bidding firms that are listed on the Main Board of the Kuala Lumpur Stock Exchange (KLSE) excluding firms that are classified under the financial sector as these firms are different in terms of their accounting, financial characteristics and rules. The date considered as an "event" date is the date of the first announcement of a particular acquisition proposal as recorded in the first press release of takeover kept in the companies' file of the KLSE library.

The bidding firm's daily stock returns were obtained from the KLSE for 60 days before the proposed acquisition announcement date and 60 days after. The estimation period surrounding the event is further divided into pre-announcement period (-60, 0) and post announcement period (1, + 60). The sample period of the current study covers from the 1 January 1995 to 31 December 2000. Table 1 shows a breakdown of the sample according to type of acquisition (direct or indirect), method of payment (cash or equity) and type of target firm (private or non-private).

Within the sample period, a total of 167 proposed acquisition by cash and 53 by equity announcements have been identified to be suitable for the purpose of this study. Of the total acquisitions by cash, 119 announcements were involved in direct acquisition and 48 in indirect acquisitions. As for the types of target firms, irrespective of whether they are direct or indirect acquisition proposals, 136 targets were identified as private limited companies and 31 were non-private limited companies. Of the total acquisitions by equity, 51 announcements were direct acquisition proposals and only two were indirect acquisition proposals. As for the types of target firms, irrespective of whether they were direct or indirect acquisition proposals, 43 targets were private limited companies and 10 were non-private limited companies.

| Method of payment | Type of Acquisition |          |       | Type of target firm |             |       |
|-------------------|---------------------|----------|-------|---------------------|-------------|-------|
|                   | Direct              | Indirect | Total | Private N           | lon-private | Total |
| Cash              | 119                 | 48       | 167   | 136                 | 3           | 167   |
| Equity            | 51                  | 2        | 53    | 43                  | 10          | 53    |

TABLE 1. Breakdown of study sample according to type of acquisition, method of payment and type of target firm

#### Methods of Payment

The non-private limited companies in this analysis include listed and unlisted public companies, and foreign companies. The criteria imposed on the sample selected are as follows:

- Must be the first published announcement of the proposed acquisitions purely by cash or equity. Subsequent announcements on the same particular acquisition are not considered;
- Does not take into account the end results of the proposal i.e. whether the proposed acquisition is successful or not;
- The bidding companies must be listed on the Main Board of KLSE; and companies that are classified under financial sector are excluded. The listing will be provided upon request to author.
- Excludes any concurrent event.

# (i) Measurement of Abnormal Returns

The basic methodology of this study involves the use of the following one factor market model:

$$R_{i,t} = \alpha_i + \beta_i R_{m,t} + \varepsilon_{i,t}$$

where:

 $R_{i,t}$  = the daily returns of either the bidding or the target firm i at time t and it is calculated as follows:

where:

 $P_t$  = the price of stock i on day t and  $P_{t-1}$  is the price of stock i one day before t.

 $R_{m,t}$  = the daily returns at time t of the market index (m), in this case is the KLSE Composite Index; that is

where:  $m_i$  = the index of the KLSE on day t and  $m_{i-1}$  is the index of the KLSE one day before t.  $\alpha_i = E(R_{i,t}) - b_i E(R_{m,t});$  $\beta_i$  = covariance  $(R_{i,t}, R_{m,t})$  / variance  $R_{m,t}$ ; and

 $\varepsilon_{i}$  = stochastic error term.

This model is assumed to satisfy the normal requirement of a linear regression model that is;

• all  $\varepsilon_{ij}$  have a mean (or expectation) of zero; E ( $\varepsilon_{ij}$ );

- all  $\varepsilon_{i}$  have a common constant and finite variance for  $\sigma^2$  for all t ;
- error terms are serially independent; and
- the distribution of  $\varepsilon_{i}$  is independent of the explanatory variables  $R_{m}$ .

For the purpose of this study, the data is analysed using Naïve Model that is based the Market Model with constrained  $\alpha = 0$  and  $\beta = 1$ . This procedure follows Madden (1981) and implies that the market is in equilibrium and the systematic risk for all securities is the same.

Fauzias (1993) in examining the effects of acquisition announcement on the price behaviour of the Malaysian bidders and target firms employs three (3) alternative models, One Factor Market Model and the CAPM Model both with estimated intercept unconstrained and constrained to zero. The study finds no obvious difference in the conclusions from using different models. An announcement is an "event". The purpose of the event period is to capture all the effects on stock price of the event. The Naïve Model method is the simplest method of measuring this event. The predicted return of a firm for a day in the event period is just the return on the market index; in this case KLSE Composite Index for that day. That is;

$$R_{i,t} = R_{m,t}$$

Thus, the abnormal return (residuals) of a firm in particular day in the event period can be calculated as

 $AR_{i,t} = R_{i,t} - R_{m,t}$ 

For each day in event time the residuals are averaged across firms to produce the average residual for that day, AR, and it is calculated as follows:

Where, N is the number of firms in the sample which have abnormal returns in day t. By averaging across firms, the "noise" in stock returns could possibly be eliminated especially in larger sample thus providing better chance of accuracy in distinguishing the effect of an event.

The next step is finding the cumulative average residual (CAR). The CAR represents the average total effect of the event across all firms over a specified time interval. It is calculated as follows:

CAR =

(ii) Significance Test On Abnormal Performance

The following t-statistic is employed to determine whether  $AR_t$  differs significantly from zero for any event day. The test statistic is the ratio of the average residual to its estimated standard deviation (a statistics of this form is widely used in event studies, e.g. Masulis, 1980);

t =

where, the standard deviation s is estimated from time series of average residual.

In the case for the estimation period of (-60, +60), the calculation is as follows:

AAR is estimated as,

AAR =

Where: N = number of average residuals in the estimation period, AAR = average measure of average residuals in the estimation period

The test statistic on the cumulative average residual is the ratio of the cumulative average residual to its standard deviation which is given by:

where,  $\sigma_{CAR} = \sigma_{AR} \sqrt{K}$  and  $\sigma_{AR}$  is the standard error of the daily return over the estimation period, and K is the number of days in the CAR statistic.

#### FINDINGS

Panel A of Table 2 shows that the number of proposals for direct acquisition by cash as announced has been consistent in each year with an average of 20 proposals or 12% per annum over the total sample. As for the proposals of the indirect acquisition (makes indirectly via subsidiary) by cash, the number has not been very consistent with the highest of 13 proposals recorded in 1999 and the lowest of 2 recorded in 1995. In total, proposals for direct acquisitions by cash recorded an obviously higher number (199 or 71% of the total) than the proposals for indirect acquisitions, which recorded 48 proposals or 29% for the whole sample period. The data above gives an early indication that where cash is concern, direct acquisition involving the bidding company itself is more popular in Malaysia, no matter whether the target is a private limited or otherwise, compared to the acquisition that is made indirectly through the bidding company's subsidiary.

From panel B of Table 2, the proposed direct acquisition by equity is seen dominating, recording 51 proposals or 96% from the total 53 for the period of 1995 to 2000. The highest number of proposals recorded for this type of acquisition was in 1995 with eighteen (18) proposals whilst the lowest was in 2000 with only three (3) proposals.

By comparison, generally acquisition by cash is more popular than by equity acquisition proposals amongst the bidders with 167 proposals or 75.9% favouring the former from the total of the proposed acquisition by cash and equity for the period between 1995 to 2000. In addition, there is a clear indication that direct acquisition proposals have been the bidder's popular choice regardless of by cash or by equity types of acquisition.

| Year  | Direct   | Indirect | Total     |
|-------|----------|----------|-----------|
| 1995  | 22(13%)  | 2(1%)    | 24(14%)   |
| 1996  | 17(10%)  | 8(5%)    | 25(15%)   |
| 1997  | 20(12%)  | 6(4%)    | 26(16%)   |
| 1998  | 20(12%)  | 9(5%)    | 29(17%)   |
| 1999  | 21(13%)  | 13(8%)   | 34(20%)   |
| 2000  | 19(11%)  | 10(6%)   | 29(17%)   |
| Total | 199(71%) | 48(29%)  | 167(100%) |

TABLE 2. Number of acquisition proposals by cash and equity according to type of acquisition.

| Panel B: Type of acc | uisitions | by | equity |
|----------------------|-----------|----|--------|
|----------------------|-----------|----|--------|

| Year  | Direct  | Indirect | Total    |
|-------|---------|----------|----------|
| 1995  | 18(34%) | 0        | 18(34%)  |
| 1996  | 9(17%)  | 0        | 9(17%)   |
| 1997  | 7(13%)  | 1(2%)    | 8(15%)   |
| 1998  | 7(13%)  | 0        | 7(13%)   |
| 1999  | 7(13%)  | 0        | 7(13%)   |
| 2000  | 3(6%)   | 1(2%)    | 4(8%)    |
| Total | 51(96%) | 2(4%)    | 53(100%) |

#### Methods of Payment

Table 3 shows the types of target, between private limited and nonprivate limited companies that have become the choice of the bidding company with regard to the proposed acquisitions by cash and by equity. On average, the number of the private limited companies used as target in the acquisition by cash proposals is far higher than the non-private limited companies that is, about 23 offers or 14% to five offers or 3% received respectively, over the total sample, per annum. The highest number of offers received by the private limited company was recorded in 1999 with 29 offers whilst the lowest was in 1996 with 18. In total over the sample period, the total offers received by the private companies is 136 or 81% compared to non-private companies which only received 31 offers or 19% of the total.

Similar to the trend of cash acquisition for the period 1995-2000, the proposed acquisition by equity also seem to be targeting mostly private limited companies. The highest number of 18 proposals or 34% was recorded in 1995 while the lowest of four proposals was recorded in 2000. The data, in general, indicates that private limited company is more popular as the target of the Malaysian bidder compared to non-private limited company, no matter whether it is a direct or indirect type of acquisition.

| Year  | Private Limited | Non-Private Limited | Total     |
|-------|-----------------|---------------------|-----------|
| 1995  | 22(13%)         | 2(1%)               | 24(14%)   |
| 1996  | 18(11%)         | 7(4%)               | 25(15%)   |
| 1997  | 22(13%)         | 4(2%)               | 26(16%)   |
| 1998  | 25(15%)         | 4(2%)               | 29(17%)   |
| 1999  | 29(17%)         | 5(3%)               | 34(20%)   |
| 2000  | 20(12%)         | 9(5%)               | 29(17%)   |
| Total | 136(81%)        | 31(19%)             | 167(100%) |

TABLE 3. Number of acquisition proposals by cash and equity according to the type of target firms

| Total         | 136(81%)                  | 31(19%)             | 167(100%) |
|---------------|---------------------------|---------------------|-----------|
| Panel B: Type | of acquisitions by equity | ,                   |           |
| Year          | Private Limited           | Non-Private Limited | Total     |
| 1995          | 14(26%)                   | 4(7%)               | 18(34%)   |
| 1996          | 7(13%)                    | 2(4%)               | 9(17%)    |
| 1997          | 6(12%)                    | 2(4%)               | 8(15%)    |
| 1998          | 6(12%)                    | 1(2%)               | 7(13%)    |
| 1999          | 6(12%)                    | 1(2%)               | 7(13%)    |
| 2000          | 4(6%)                     | 0                   | 4(8%)     |
| Total         | 43(81%)                   | 10(19%)             | 53(100%)  |

Bidder's Returns Behaviour on the Proposed Acquisitions by cash and Equity Based on the Overall Sample

The summary of the significant results of the AR and CAR with regard to the bidder's returns behaviour on the proposed acquisitions by cash and equity announcement based on overall sample is shown in Table 4. The results on the CAR are plotted in graph form in Figure 1. As a whole, the bidder's AR direction appears mixed and unclear throughout the sample period.

Closer to the announcement date, the AR by cash recorded positive values but not significant on day -2, -1 and on the announcement day but immediately turns negative significantly two days after announcement. The similar trend can be seen from other smaller estimation period of (-30, +30). As for method of payment by equity, the AR recorded positive significant values on the day of announcement and immediately turns negative insignificantly two days after announcement.

|     | OVERA                              | LL (167 acqu | usitions) FO                            | R CASH                                  |           |  |
|-----|------------------------------------|--------------|---|---|-----------|--|
| AV  | G. RESIDUALS (A                    |              |   | AVG RESIDUALS                           | (CAR)     |  |
| (-) | (-60,+60), σ <sub>AB</sub> =0. 300 |              |   | (-60,+60), $\sigma_{CAR}=0.300\sqrt{K}$ |           |  |
| Day | AR Values                          | Sig t        | Day                                     | *CAR Values                             | *Sig t    |  |
| -49 | 0.671                              | 2.236        | None                                    | None                                    | None      |  |
| -21 | 0.651                              | 2.17         |   |   |           |  |
| -14 | 0.724                              | 2.412        |   |   |           |  |
| 1   | -0.718                             | -2.393       |   |   |           |  |
| 2   | -0.905                             | -3.016       |   |   |           |  |
| (   | $(-60,0), \sigma_{AB}=0.313$       |              |   | (-60,0), $\sigma_{CAR}=0.313\sqrt{K}$   |           |  |
| -49 | 0.671                              | 2.142        | None                                    | None                                    | None      |  |
| -21 | 0.651                              | 2.079        |   |   |           |  |
| -16 | -0.746                             | -2.383       |   |   |           |  |
| (   | 0,+60), σ <sub>AR</sub> =0. 2      | 80           | (0,+60), $\sigma_{CAR} = 0.280\sqrt{K}$ |   |           |  |
| 1   | -0.718                             | -2.562       | 2-11                                    | -1.282 to                               | -2.045 to |  |
|     |                                    |              |   | -2.521                                  | - 3.180   |  |
| 2   | -0.905                             | -3.229       | 13-60                                   | -2.347 to                               | -2.025 to |  |
|     |                                    |              |   | -5.025                                  | -3.163    |  |
| 25  | -0.570                             | -2.033       |   |   |           |  |
| (-  | (-30,+30), σ <sub>AR</sub> =0. 358 |              | (-30                                    | ,+30), σ <sub>car</sub> =0. 3           | 58√K      |  |
| 1   | -0.718                             | -2.007       | None                                    | None                                    | None      |  |
| 2   | -0.905                             | -2.530       |   |   |           |  |

TABLE 4. Summary of the significant test results on the bidder's AR & CAR of overall acquisitions by cash and equity

(continue)

|                                     |                                |        | uisitions) FOF                              |                                   |                   |
|-------------------------------------|--------------------------------|--------|---|-----------------------------------|-------------------|
| AV                                  | G. RESIDUALS (                 | AR),   | CUM.  | AVG RESIDUALS                     | G (CAR)           |
| (-60,+60), σ <sub>AR</sub> =0. 5211 |                                |        | (-60,+60), $\sigma_{CAR} = 0.5211 \sqrt{K}$ |                                   |                   |
| Day                                 | AR Values                      | Sig t  | Day   | *CAR Values                       | *Sig 1            |
| -18                                 | 1.321                          | 2.5361 | 0-6   | 8.7044<br>-11.173                 | 2.0409<br>-2.7584 |
| 0                                   | 3.105                          | 5.9595 |   |                                   |                   |
| 53                                  | 1.2516                         | 2.4020 |   |                                   |                   |
| (-6                                 | 50,+0), σ <sub>AR</sub> =0. 54 | 478    | (-60,-                                      | + 0), σ <sub>car</sub> =0. 54     | 78√K              |
| -18                                 | 1.3214                         | 2.412  | 0   | 10.7306                           | 2.5079            |
| 0                                   | 3.1052                         | 5.668  |   |                                   |                   |
| (0                                  | $(0,+60), \sigma_{AB}=0.6184$  |        | (0,+6 0), σ <sub>CAR</sub> =0. 6184√K       |                                   |                   |
| 0                                   | 3.105                          | 5.021  | 0-3   | 2.5470                            | 2.0594            |
|                                     |                                |        |   | -3.6916                           | - 5.021           |
| 53                                  | 1.252                          | 2.024  |   |                                   |                   |
| (-3                                 | $0,+30), \sigma_{AR}=0.6$      | 027    | (-30,+                                      | -3 0), $\sigma_{\rm CAR} = 10.$ ( | 5027√K            |
| -18                                 | 1.3214                         | 2.193  | -1814                                       | 4.4302                            | 1.9642            |
|                                     |                                |        |   | -4.9866                           | -2.2869           |
| 0                                   | 3.1052                         | 5.1523 | -109  | 5.4185                            | 1.9619            |
|                                     |                                |        |   | -5.5524                           | -1.9641           |
|                                     |                                |        | -4 - 11                                     | 6.5882                            | 1.9889            |
|                                     |                                |        |   | -12.3892                          | -3.6339           |
|                                     |                                |        | 13-17                                       | 8.2558                            | 1.9957            |
|                                     |                                |        |   | 9,2861                            | -2.2718           |

TABLE 4 continue

\*The values shown range (if any) from the lowest to the highest

As for the CAR for acquisition by cash, it is noted to have mostly positive values in the pre-announcement period and negative values in the post-announcement period. Despite that, no significant values recorded for the estimation periods based on (-60, +60) and (-60, 0) but the CAR appears negatively significant on most of the days after the announcement date when using estimation period (0, +60). As for method of payment by equity, the significant positive values are mostly on the announcement date except for -30 days to +30 days where it is mostly positive before the announcement period. Likewise, the post-announcement period records positive significant values for CAR continuously for one day until 17 days after the announcement.

The significant positive values for cash in the pre-announcement period may indicate that the news could have leaked in the market. Whereas, an immediate turning i.e. one day after the announcement date may indicate that the investors have over-reacted to the news. It is also fair to conclude

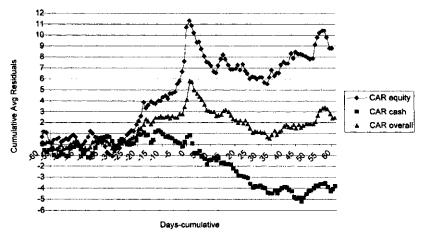


FIGURE 1. Cumulative Abnormal Return of Overall Acquisitions by cash and equity

that Malaysian investors generally do not favour cash-based acquisition as shown by significantly negative results on the bidder's average residuals after the announcement date.

The positive significant values of CAR for equity for one day until 17 days after the announcement could give an implication that positive information concerning a forthcoming corporate takeover is considered 'good' news for the shareholders of bidders. However, the overall results could be associated to types of acquisitions either direct or indirect acquisitions, and types of company at which the bidding company is targeting for either private limited or non-private limited, could influence or shape the bidding company returns behaviour.

Bidder's Returns Behaviour on the Proposed Direct Acquisition and the Proposed Indirect Acquisition

# (a) The Proposed Direct Acquisition

The significant values of the bidder's average residuals (AR) and cumulative average residuals (CAR) in response to the proposed direct acquisition by cash and equity announcements are summarised and shown in Table 5.

Upon approaching the announcement date, the AR by cash recorded significant positive values on day -2 and insignificant positive returns on the announcement day. As for method of payment by equity, the AR recorded positive significant values on the announcement and immediately turns negative insignificantly two days after announcement.

The bidder's CAR on direct acquisition by cash records mostly positive values in the pre announcement period but the trend reverses after the announcement date. As for method of payment by equity, CAR records

| AV       | G. RESIDUALS (                | AR),      | CUM. A      | VG RESIDUALS                    | (CAR)             |
|----------|-------------------------------|-----------|-------------|---------------------------------|-------------------|
|          | 50,+60), σ <sub>AR</sub> =0.  |           | (-60,-      | +60), $\sigma_{\rm CAR}$ =0. 3. | 37√K              |
| Day      | AR Values                     | Sig t     | Day         | *CAR Values                     | *Sig              |
| -60      | -0.690                        | -2.045    | -60         | -0.690                          | -2.045            |
| -16      | -0.832                        | -2.468    | 20-21       | -5.978                          | -1.970            |
|          |                               |           |             | -6.570                          | -1.984            |
| -2       | 0.676                         | 2.005     | 23-28       | -6.186                          | -2.001            |
|          |                               |           |             | -7.095                          | -2.256            |
| 1        | -1.061                        | -3.145    | 30-37       | -6.440                          | -1.971            |
|          |                               |           |             | -7.048                          | -2,156            |
| 2        | -1.049                        | -3.11     | 43-47       | -7.063                          | -2.030            |
|          |                               |           |             | -7.604                          | -2.200            |
| 7        | -0.687                        | -2.036    | 58          | -7.325                          | -1.991            |
| 13       | 0.756                         | -2.242    |             |                                 |                   |
| (        | -60,0), $\sigma_{AR}=0.32$    | 24        | (-60        | $(0,0), \sigma_{CAR} = 0.324$   | ŧ√K               |
| -60      | -0.690                        | -2.129    | -60         | -0.690                          | -2.129            |
| -32      | -0.648                        | -2.001    | -59         | -0.897                          | -1.957            |
| -21      | 0.670                         | 2.069     |             |                                 |                   |
| -16      | -0.832                        | -2.569    |             |                                 |                   |
| ((       | ),+60), σ <sub>AR</sub> =0. 3 | 46        | (0,+        | 60), σ <sub>car</sub> =0. 340   | 5√ <b>K</b>       |
| 1        | -1.061                        | -3.067    | 2 - 60      | -1.698                          | -2.072            |
|          |                               |           |             | - 6.846                         | -3.527            |
| 2        | -1.049                        | -3.033    |             |                                 |                   |
| 13       | -0.756                        | -2.186    |             |                                 |                   |
|          | DIR                           | ECT TAKEO | VER BY EQUI | TY                              |                   |
| AV       | G. RESIDUALS (                | AR),      | CUM. A      | VG RESIDUALS                    | (CAR)             |
| (-6      | 0,+60), σ <sub>AR</sub> =0. 5 | 211       | (-60,+      | 60), σ <sub>car</sub> =0. 52    | 11√K              |
| Day      | AR Values                     | Sig t     | Day         | *CAR Values                     | *Sig t            |
| -18      | 1.1832                        | 2.2735    | 0-6         | 8.4036                          | 1.9727            |
|          |                               |           |             | -10.6996                        | -2.6110           |
| 0        | 3.0129                        | 5.7894    |             |                                 |                   |
| 43       | 1.0397                        | 1.9977    |             |                                 |                   |
| 53       | 1.3153                        | 2.5223    |             |                                 |                   |
| (-6      | 0,+0), σ <sub>AR</sub> =0. 54 | 178       | (-60,+      | 0), σ <sub>car</sub> =0. 54     | 78√K              |
| -18      | 1.1832                        | 2.1694    | 0           | 10.0382                         | 2.3566            |
| 0        | 3.0129                        | 5.5243    |             |                                 |                   |
| (0,      | +60), σ <sub>AR</sub> =0. 61  |           | (0,+6       | 0), σ <sub>car</sub> =0. 618    | 4√K               |
|          | 1.1832                        | 2.2735    | 0-6         | 8.4036                          | 1.9727            |
| -18      |                               |           |             |                                 |                   |
| -18<br>0 |                               |           |             | 2.597                           | 2.1138            |
|          | 3.013                         | 4.904     | 0-3         | 2.597<br>-3.674                 | 2.1138<br>-4.9045 |

\* The values shown (if any) range from the lowest to the highest

mostly insignificant values before the announcement and significant positive return on the announcement and after announcement.

# (b) The Proposed Indirect Acquisition

The significant values of the bidder's AR and CAR with regard to the proposed indirect acquisition by cash announcements are summarised and shown in Table 6.

Since the number of firms involved in the indirect acquisitions by equity is only two, the analysis on the share price behaviour is not done. The analysis is only for acquisition by cash.

| TABLE 6. Summary of the significant test results on bidder's AR & CAR | of |
|---|----|
| indirect acquisitions   |    |

| AVG. RESIDUALS (AR),             |                            | AR),                                    | CUM. AVG. RESIDUALS (CAR)                  |                              |              |
|----------------------------------|----------------------------|---|--|------------------------------|--------------|
| $(-60,+60), \sigma_{AB} = 0.511$ |                            |   | (-60,+60), $\sigma_{CAR} = 0.511 \sqrt{K}$ |                              | 1 <b>1√K</b> |
| Day                              | AR Values                  | Sig. t                                  | Day  | *CAR Values                  | *Sig. t      |
| None                             | None                       | None                                    | None                                       | None                         | None         |
| $(-60,0), \sigma_{AR} = 0.544$   |                            | (-60,0), $\sigma_{CAR} = 0.544\sqrt{K}$ |  |                              |              |
| -37                              | 1.275                      | 2.344                                   | None                                       | None                         | None         |
| -14                              | 1.315                      | 2.417                                   |  |                              |              |
| -13                              | 1.238                      | 2.275                                   |  |                              |              |
| (0                               | ,+60), $\sigma_{AR} = 0.4$ | 72                                      | (0,-                                       | +60), $\sigma_{CAR} = 0.472$ | 2√K          |
| 32                               | -1.139                     | -2.412                                  | None                                       | None                         | None         |
| 37                               | 1.198                      | 2.538                                   |  |                              |              |
| 46                               | -1.258                     | -2.664                                  |  |                              |              |

\*The values shown (if any) range from the lowest to the highest

The movement of the bidder's AR on indirect acquisition by cash is seen mixed and unclear prior to the announcement date. Closer to the announcement date, the AR records negative values on day -3, and -2 but turns positive on day -1 and then back to the negative values on the announcement date (day 0). The similar unclear trend is also seen after the announcement date. None of the AR however has recorded significant values at 5% level during this period. Based on the estimation period of (-60,0), the AR significant positive values are however seen to appear on day -37, -14 and -13, whilst for estimation period of (0, +60), the significant negative values emerge on day +32 and +46 but turns positively significant on day +37.

The bidder's CAR records positive values as early as from day -37 up to day +60 (-60, +60 and -60, 0) but appear mixed under the estimation period of (0, +60) with negative values emerge in the first week after the

announcement date, then turns positive in the next 18 days before they become negative again on day +26 up to day +60. Despite that, none of the CAR has recorded significant values at 5% level during this period.

Based on the significance test at 5% level, it appears that investors are reacting negatively to the proposed direct acquisition by cash announcement compared to the indirect acquisition by cash though it is not as immediate as expected.

This is proven by the consistency of the significant negative AR (-60, +60), (0, +60) and CAR (0, +60) values recorded under direct acquisition by cash as early as a day after the announcement date.

As for the indirect acquisition by cash, the significant values of the bidder's AR only appear approximately between one month to two weeks prior to the announcement date (-60, 0). The bidder's CAR has not recorded any significant value at all within the stipulated estimation periods.

The investors' unclear reaction over the bidder's proposal of the direct acquisition by cash prior to the announcement date may indicate that the investors are undecided and probably they are taking a little longer time to study the full proposal before they make up their mind. The negative reaction shown by the investors in the post-announcement period could possibly be due to their worries over issues like over-pricing, the source of funding for the acquisition, or may be also due to more complicated issues of synergy or value-added which are not up to their expectation.

The significant positive return on the announcement and after the announcement gives an indication that such announcement signals positive information concerning a forthcoming corporate takeover is considered 'good' news for the shareholdings of bidding firm.

The unclear and insignificant reaction from the investors with regard to the proposed indirect acquisition by cash before and after the announcement date on the other hand may show that, such a proposal to most investors could be "too small a deal to be bothered". This is being the fact that, subsidiary of a bidder company usually has limited financial capability and it is very unlikely that this subsidiary will engage in large-scale type of acquisitions that will give a significant impact to the whole group's performance. The scenario would definitely be different if the bidder company itself involves directly in such kind of a transaction.

Bidder's Returns Behaviour on the Proposed Acquisition When the Target is a Private Limited Company and When the Target is a Non-Private Limited Company

# (a) Private Limited Company as Target

The significant results of the bidder's AR and CAR with regard to the proposed acquisition announcement by cash and equity when the target company is a private limited are summarised and shown in Table 7.

The bidder's AR on acquisition by cash appears mostly positive in the pre-announcement period and negative in the post-announcement period. Closer to the announcement date, the AR records insignificant positive values on day -2, -1 and on the announcement date. Immediately after the announcement, that is, on day +1 and day +2, the AR turns negative significantly before it becomes positive again on day +5 and day +6 and thereafter, the AR mostly records negative values up to day +60. The significant negative AR values at 5% level are noted to appear on day -60, -16, +1, +2, +25 and +32 (-60, +60), -16 (-60, 0) and +1, +2, +7, +25 and +32 (0, +60). On the other hand, the significant positive values are noted to appear on day -49, -39, -21 and -14 (-60, +60), (-60, 0).

The bidder's AR on acquisition by equity appears insignificant in the pre-announcement period and positive the post-announcement period. Closer

| AV                             | G. RESIDUALS (.               | AR),   | ου                                    | M. AVG RESIDU                 | ALS (CAR)    |  |
|--------------------------------|-------------------------------|--------|---------------------------------------|-------------------------------|--------------|--|
| $(-60,+60), \sigma_{AB}=0.316$ |                               |        | (-60,+60), σ <sub>CAR</sub> =0. 337√K |                               |              |  |
| Day                            | AR Values                     | Sig t  | Day                                   | *CAR Values                   | *Sig t       |  |
| -60                            | -0.634                        | -2.003 | -60                                   | -0.634                        | -2.003       |  |
| -49                            | 0.649                         | 2.051  | -59                                   | -0.887                        | -1.982       |  |
| -39                            | 0.660                         | 2.083  |                                       |                               |              |  |
| -21                            | 0.663                         | 2.095  |                                       |                               |              |  |
| -16                            | -0.905                        | -2.858 |                                       |                               |              |  |
| -14                            | 0.633                         | 2.001  |                                       |                               |              |  |
| 1                              | -0.675                        | -2.133 |                                       |                               |              |  |
| 2                              | -0.903                        | -2.852 |                                       |                               |              |  |
| 25                             | -0.637                        | -2.011 |                                       |                               |              |  |
| 32                             | -0.634                        | -2.002 |                                       |                               |              |  |
| (                              | -60,0), $\sigma_{AR}=0.32$    | 27     | (-60,0), σ <sub>CAR</sub> =0. 327√K   |                               |              |  |
| -49                            | 0.649                         | 1.986  | None                                  | None                          | None         |  |
| -39                            | 0.660                         | 2.017  |                                       |                               |              |  |
| -21                            | 0.663                         | 2.079  |                                       |                               |              |  |
| -16                            | -0.905                        | -2.767 |                                       |                               |              |  |
| (                              | 0,+60), σ <sub>AR</sub> =0. 2 | 93     |                                       | (0,+60), σ <sub>CAR</sub> =0. | 293√K        |  |
| 1                              | -0.675                        | -2.304 | 2-3                                   | -1.410-1.473                  | -2.405-2.902 |  |
| 2                              | -0.903                        | -3.080 | 5-11                                  | -1.617-2.654                  | -1.986-320   |  |
| 7                              | -0.594                        | -2.027 | 13-60                                 | -2.222-70.98                  | -1.957-3.59  |  |
| 25                             | -0.637                        | -2.172 |                                       |                               |              |  |
| 32                             | -0.634                        | -2.162 |                                       |                               |              |  |

TABLE 7. Summary of the test results on the bidder's AR & CAR of acquisitions by cash and equity when a private limited company is used as a target

table continue

|                      | Acquisition s b                     | y equity (PF | IVATE I                                | IMITED AS TARG                 | ET)           |  |
|----------------------|-------------------------------------|--------------|--|--------------------------------|---------------|--|
| AVG. RESIDUALS (AR), |                                     |              | CUM. AVG RESIDUALS (CAR)               |                                |               |  |
| (-6                  | (-60,+60), σ <sub>AR</sub> =0. 6525 |              | (-60,+60), σ <sub>CAR</sub> =0. 6525√K |                                |               |  |
| Day                  | AR Values                           | Sig t        | Day                                    | *CAR Values                    | *Sig t        |  |
| -18                  | 1.4141                              | 2.1672       | 0-6                                    | 10.8173-13.7277                | 2.0254-2.6720 |  |
| -1                   | 1.3479                              | 2.0658       |  |                                |               |  |
| 0                    | 3.7280                              | 5.7137       |  |                                |               |  |
| 53                   | 2.0842                              | 3.1943       |  |                                |               |  |
| (-6                  | $(60,+0), \sigma_{AR}=0.60$         | 893          |  | $(-60,+0), \sigma_{CAR}=0$     | . 6893√K      |  |
| -18                  | 1.4141                              | 2.052        | 0                                      | 13.2564                        | 2.4624        |  |
| 0                    | 3.7280                              | 5.409        |  |                                |               |  |
| (0                   | ,+60), σ <sub>AR</sub> =0, 76       | 502          |  | (0,+6 0), σ <sub>CAR</sub> =0. | .7602√K       |  |
| 0                    | 3.7280                              | 4.904        | 0-2                                    | 3.5280-4,1993                  | 2.6796-4.9042 |  |
| 53                   | 2.0842                              | 2.742        |  |                                |               |  |

\* The values shown (if any) range from the lowest to the highest

to the announcement date, the AR records significant positive values on day, -1 and on the announcement date. Immediately after the announcement, that is on day +1 and day +2, the AR turns insignificantly before it becomes significant on day 53 after the announcement (-60, +60) and (0, +60).

The CAR on acquisition by cash records negative values from day -60 up to day -37 and turns positive from day -38 to +1. The values are mostly negative thereafter up to day +60. The CAR significant negative t-values at 5% levels however appear only on day -60 and -59 (-60, +60) and on most of days after the announcement date starting from day +2 up to day +60. The CAR on acquisition by equity records significant positive values on the day of announcement and until day 6 for (-60, +60) and until day 2 for (0, +60) after announcement

### (b) Non-Private Limited Company as Target

The significant values of the bidder's AR and CAR in response to the proposed acquisition by cash and equity announcements when the target is non-private limited company are summarised and shown in Table 8.

The bidder's AR direction on acquisition by cash is seen uncertain throughout the estimation period. Closer to the announcement date, the AR values appear positive on day -3, -2, -1 and 0 but immediately turns negative after the announcement date as noted on day +1, +2, +3 and +5. None of the bidder's AR however appears to be significant at 5% level for the estimation period (-60, +60). The significant negative values however appear only on day -13 (-60, 0) but positive significant values appear on day -40, -14 and -1 (-60, 0), day +31, +37, +48 and +49 (0, +60).

|  | OUISITION BY C   | CASH (NON  | PRIVATE I  | IMITED AS TAR  | GET )   |     |
|--|--|--|--|--|---|-----|
| AC   |  | •  |  |  | ,   |     |
| AVG. RESIDUALS (AR),<br>(-60,+60), _ <sub>AR</sub> =0. 538                                   |  |  | CUM. AVG RESIDUALS (CAR)<br>(-60,+60), $_{-CAR}=0.538\sqrt{K}$ |  |   |     |
|  |  |  |  |  |   | Day |
| None   | None   | None   | None   | None   | None  |     |
| (-60,0), <sub>¬AR</sub> =0. 501  |  |  | $(-60,0),{CAR}=0.501\sqrt{K}$                                  |  |   |     |
| -40  | 1.006  | 2.009  | None   | None   | None  |     |
| -14  | 1.0135   | 2.266  |  |  |   |     |
| -13  | -1.153   | -2.301   |  |  |   |     |
| -1   | 1.088  | 2.171  |  |  |   |     |
| (0   | ),+60), <sub>AR</sub> =0. 50   | 69   | (  | $0,+60),{CAR}=0.$  | 569√K   |     |
| 31   | 1.138  | 2.000  | None   | None   | None  |     |
| 37   | 1.648  | 2.896  |  |  |   |     |
| 48   | 1.536  | 2.700  |  |  |   |     |
| 49   | 1 (00  |  |  |  |   |     |
| ACQ  | 1.623<br>UISITIONS BY<br>G. RESIDUALS (  |  |  | E LIMITED AS T<br>4. AVG RESIDUA   |   |     |
| ACQ  | UISITIONS BY   | EQUITY (NO<br>AR),   | CUN  |  | LS (CAR)  |     |
| ACQ  | UISITIONS BY<br>G. RESIDUALS (.  | EQUITY (NO<br>AR),   | CUN<br>(-6   | A. AVG RESIDUA   | LS (CAR)  |     |
| ACQ<br>AV(   | UISITIONS BY<br>G. RESIDUALS (,<br>0,+60), _ <sub>AR</sub> =0. 9   | EQUITY (NC<br>AR),<br>95.3   | CUN<br>(-6   | 4. AVG RESIDUA<br>60,+60), <sub>car</sub> =0.  | LS (CAR)<br>9503√K  |     |
| ACQ<br>AVC<br>(-6<br>Day   | UISITIONS BY<br>G. RESIDUALS (<br>0,+60), <sub>-ar</sub> =0. S<br>AR Values  | EQUITY (NO<br>AR),<br>95.3<br>Sig t  | CUN<br>(-é<br>Day  | 4. AVG RESIDUA<br>50,+60),   | LS (CAR)<br>9503√K<br>*Sig t                              |     |
| ACQ<br>AV(<br>(-6<br>Day<br>-15  | UISITIONS BY<br>G. RESIDUALS (.<br>0,+60),AR=0. 9<br>AR Values<br>1.8986<br>2.9008<br>-2.4943  | EQUITY (NC<br>AR),<br>05.3<br>Sig t<br>1.9980<br>3.0527<br>-2.6249   | CUN<br>(-é<br>Day  | 4. AVG RESIDUA<br>50,+60),   | LS (CAR)<br>9503√K<br>*Sig t                              |     |
| ACQ<br>AV(<br>(-6<br>Day<br>-15<br>-10<br>-8<br>0  | UISITIONS BY<br>G. RESIDUALS (<br>0,+60),AR=0. 9<br>AR Values<br>1.8986<br>2.9008<br>-2.4943<br>1.91302  | EQUITY (NC<br>AR),<br>95.3<br>Sig t<br>1.9980<br>3.0527<br>-2.6249<br>2.0132   | CUN<br>(-é<br>Day  | 4. AVG RESIDUA<br>50,+60),   | LS (CAR)<br>9503√K<br>*Sig t                              |     |
| ACQ<br>AV(<br>(-6<br>Day<br>-15<br>-10<br>-8<br>0<br>26                                      | UISITIONS BY<br>G. RESIDUALS (.<br>0,+60),AR=0. 9<br>AR Values<br>1.8986<br>2.9008<br>-2.4943<br>1.91302<br>-2.2589  | EQUITY (NC<br>AR),<br>05.3<br>Sig t<br>1.9980<br>3.0527<br>-2.6249<br>2.0132<br>-2.3772  | CUN<br>(-é<br>Day  | 4. AVG RESIDUA<br>50,+60),   | LS (CAR)<br>9503√K<br>*Sig t                              |     |
| ACQ<br>AV(<br>(-6<br>Day<br>-15<br>-10<br>-8<br>0<br>26<br>34                                | UISITIONS BY<br>G. RESIDUALS (<br>0,+60),AR=0. 9<br>AR Values<br>1.8986<br>2.9008<br>-2.4943<br>1.91302<br>-2.2589<br>2.4863   | EQUITY (NC<br>AR),<br>25.3<br>Sig t<br>1.9980<br>3.0527<br>-2.6249<br>2.0132<br>-2.3772<br>2.6165  | CUM<br>(-6<br>Day<br>None                                      | M. AVG RESIDUA<br>50,+60), _ <sub>CAR</sub> =0.<br>*Car Values<br>None                   | ALS (CAR)<br>9503√K<br>*Sig_t<br>None                     |     |
| ACQ<br>AV(<br>(-6<br>Day<br>-15<br>-10<br>-8<br>0<br>26<br>34<br>(-6                         | UISITIONS BY<br>G. RESIDUALS (<br>0,+60),AR=0. 9<br>AR Values<br>1.8986<br>2.9008<br>-2.4943<br>1.91302<br>-2.2589<br>2.4863<br>50,+0),AR=0. 9   | EQUITY (NC<br>AR),<br>05.3<br>Sig t<br>1.9980<br>3.0527<br>-2.6249<br>2.0132<br>-2.3772<br>2.6165<br>748                                       | CUM<br>(-6<br>Day<br>None                                      | 4. AVG RESIDUA<br>50,+60),   | ALS (CAR)<br>9503√K<br>*Sig_t<br>None                     |     |
| ACQ<br>AV(<br>(-6<br>Day<br>-15<br>-10<br>-8<br>0<br>26<br>34<br>(-6<br>-10                  | UISITIONS BY<br>G. RESIDUALS ( $0,+60$ ), $_{-AR}=0.9$<br>AR Values<br>1.8986<br>2.9008<br>-2.4943<br>1.91302<br>-2.2589<br>2.4863<br>50,+0), $_{-AR}=0.9^{-1}$<br>2.901   | EQUITY (NC<br>AR),<br>05.3<br>Sig t<br>1.9980<br>3.0527<br>-2.6249<br>2.0132<br>-2.3772<br>2.6165<br>748<br>2.9758                             | CUM<br>(-6<br>Day<br>None                                      | M. AVG RESIDUA<br>50,+60), _ <sub>CAR</sub> =0.<br>*Car Values<br>None                   | ALS (CAR)<br>9503√K<br>*Sig_t<br>None                     |     |
| ACQ<br>AV(<br>(-6<br>Day<br>-15<br>-10<br>-8<br>0<br>26<br>34<br>(-6<br>-10<br>-8            | UISITIONS BY<br>G. RESIDUALS ( $0,+60$ ), $_{AR}=0.9$<br>AR Values<br>1.8986<br>2.9008<br>-2.4943<br>1.91302<br>-2.2589<br>2.4863<br>50,+0), $_{AR}=0.9$<br>2.901<br>-2.494  | EQUITY (NC<br>AR),<br>25.3<br>Sig t<br>1.9980<br>3.0527<br>-2.6249<br>2.0132<br>-2.3772<br>2.6165<br>748<br>2.9758<br>-2.5588                  | CUM<br>(-6<br>Day<br>None                                      | M. AVG RESIDUA<br>50,+60), _ <sub>CAR</sub> =0.<br>*Car Values<br>None                   | ALS (CAR)<br>9503√K<br>*Sig_t<br>None                     |     |
| ACQ<br>AV(<br>(-6<br>Day<br>-15<br>-10<br>-8<br>0<br>26<br>34<br>(-6<br>-10<br>-8<br>0       | UISITIONS BY<br>G. RESIDUALS (<br>0,+60),AR=0. 9<br>AR Values<br>1.8986<br>2.9008<br>-2.4943<br>1.91302<br>-2.2589<br>2.4863<br>50,+0),AR=0. 9'<br>2.901<br>-2.494<br>1.9130   | EQUITY (NC<br>AR),<br>25.3<br>Sig t<br>1.9980<br>3.0527<br>-2.6249<br>2.0132<br>-2.3772<br>2.6165<br>748<br>2.9758<br>-2.5588<br>1.9625        | CUM<br>(-6<br>Day<br>None<br>(-1                               | M. AVG RESIDUA<br>50,+60),R=0.<br>*Car Values<br>None<br>50,+ 0),AR=0.                   | ALS (CAR)<br>9503√K<br>*Sig t<br>None<br>9748√K           |     |
| ACQ<br>AV(<br>(-6<br>Day<br>-15<br>-10<br>-8<br>0<br>26<br>34<br>(-6<br>-10<br>-8<br>0       | UISITIONS BY<br>G. RESIDUALS ( $0,+60$ ), $_{AR}=0.9$<br>AR Values<br>1.8986<br>2.9008<br>-2.4943<br>1.91302<br>-2.2589<br>2.4863<br>50,+0), $_{AR}=0.9$<br>2.901<br>-2.494  | EQUITY (NC<br>AR),<br>25.3<br>Sig t<br>1.9980<br>3.0527<br>-2.6249<br>2.0132<br>-2.3772<br>2.6165<br>748<br>2.9758<br>-2.5588<br>1.9625        | CUM<br>(-6<br>Day<br>None<br>(-1                               | M. AVG RESIDUA<br>50,+60), _ <sub>CAR</sub> =0.<br>*Car Values<br>None                   | ALS (CAR)<br>9503√K<br>*Sig t<br>None<br>9748√K           |     |
| ACQ<br>AV(<br>(-6<br>Day<br>-15<br>-10<br>-8<br>0<br>26<br>34<br>(-6<br>-10<br>-8<br>0       | UISITIONS BY<br>G. RESIDUALS (<br>0,+60),AR=0. 9<br>AR Values<br>1.8986<br>2.9008<br>-2.4943<br>1.91302<br>-2.2589<br>2.4863<br>50,+0),AR=0. 9'<br>2.901<br>-2.494<br>1.9130   | EQUITY (NC<br>AR),<br>25.3<br>Sig t<br>1.9980<br>3.0527<br>-2.6249<br>2.0132<br>-2.3772<br>2.6165<br>748<br>2.9758<br>-2.5588<br>1.9625        | CUN<br>(-6<br>Day<br>None                                      | M. AVG RESIDUA<br>50,+60),R=0.<br>*Car Values<br>None<br>50,+ 0),AR=0.                   | ALS (CAR)<br>9503√K<br>*Sig_t<br>None<br>9748√K<br>6184√K |     |
| ACQ<br>AV(<br>(-6<br>Day<br>-15<br>-10<br>-8<br>0<br>26<br>34<br>(-6<br>-10<br>-8<br>0<br>(0 | UISITIONS BY<br>G. RESIDUALS ( $_{0,+60}$ ), $_{-AR}=0.9$<br>AR Values<br>1.8986<br>2.9008<br>-2.4943<br>1.91302<br>-2.2589<br>2.4863<br>$_{0,+0}$ , $_{-AR}=0.9$<br>2.901<br>-2.494<br>1.9130<br>$_{0,+60}$ , $_{-AR}=0.92$ | EQUITY (NC<br>AR),<br>05.3<br>Sig t<br>1.9980<br>3.0527<br>-2.6249<br>2.0132<br>-2.3772<br>2.6165<br>748<br>2.9758<br>-2.5588<br>1.9625<br>514 | CUN<br>(-6<br>Day<br>None                                      | M. AVG RESIDUA<br>50,+60),AR=0.<br>*Car Values<br>None<br>50,+ 0),AR=0.<br>0,+6 0),AR=0. | ALS (CAR)<br>9503√K<br>*Sig t<br>None<br>9748√K<br>6184√K |     |

TABLE 8. Summary of the significant test results on the bidder's AR & CAR of acquisitions by cash and equity when a non-private company is used as a target

\* The values shown (if any) range from the lowest to the highest

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The bidder's AR direction on acquisition by equity is also seen uncertain throughout the estimation period. Closer to the announcement date, the AR values record significant positive values on the day of announcement and continue to uncertain as significant negative values however appear only on day -13 (-60, 0) but positive significant values appear on day -40, -14 and -1 (-60, 0), day +31, +37, +48 and +49 (0, +60).

The CAR on acquisition by cash for all categories of estimation period have been mostly negative and appear as early as from day -58 up to day +60. None however records significant values at 5% level of significance. The CAR for equity however records significant positive value until three days after announcement date.

Using t-test at 5% significance level as a benchmark, it is obvious that the investors react negatively, especially after the announcement date, to the bidder's proposed acquisition by cash when the target is private limited company compared to when the target is non-private limited (where in this case it includes public listed and foreign companies) as proven by the significant values recorded by its AR (-60,+60) and CAR (0, +60). There is an unclear effect to bidder's AR and CAR, both at (-60, +60), with regard to the proposed acquisition when the target is non-private limited companies. Although the AR on acquisition by equity records uncertainty, the CAR gives an indication that such announcement gives positive information concerning a forthcoming corporate takeover is considered 'good' news for the shareholders of bidding firms.

The mixed but mostly insignificant investor's reaction prior to the announcement date of the acquisition when the target is private limited company may indicate that investors are taking a little longer time studying the full proposal and in trying to get more information about the target. Information about the private limited company usually is not readily or publicly available and it is more costly and difficult to obtain if compared to a public company's.

The significant negative reaction shown by the investors to such proposal by cash especially after the announcement date could possibly be due to similar issues when a bidder proposes for direct acquisition. These issues include high premium to be paid to the target, the bidder's source of funding for the acquisition as well as the issue of synergistic value that can be derived from the acquisition. While the significant positive reaction shown on proposals by equity could signal low valuation on targets or the use of equity could mitigate the adverse selection of overpayment as quoted by Hirshleifer (1995).

The insignificant reaction from the investors pertaining to the proposed acquisition by cash and equity when the target is non-private limited company is still not very clear and poses a question mark. In most studies, the bidder's returns would react negatively to the acquisition by cash that involves listed company due to reasons like winner's curse, lacks synergistic value, or too high premium paid to the target company. In this case, the insignificant and mixed reactions method of payments by cash could be the result of the belief that the proposed acquisition is the acquisition of additional control of the non-private target which does not add value significantly to the bidder or benefits the bidders' shareholders, at least in the short term.

In addition to that, the mixture of listed/ unlisted public company and foreign company as target in this category may be the main reasons for the inconclusive results. This is because each of them in that category has different characteristics, and investors may react differently depending on the characteristics of this target.

The results obtained from both direct acquisitions by cash of which target are private limited companies seem to have a similarity and give a quite a similar pattern. The same results also obtained from direct acquisitions by equity of which target are private limited companies.

# Overall Analysis on the Proposed Direct Acquisition, Indirect Acquisition, private and non-private

Table 9 is a summary of the Bidder's significant AR of all scenarios (direct, indirect, private and non-private) and Table 10 is a summary of the Bidder's significant CAR of all scenarios. The results on the CAR of acquisitions by cash and equity are shown in graph form in Figures 2 and 3 respectively.

Bidder, in general, 1s found to produce significant positive AR during pre-announcement period when the proposed acquisition by cash is made directly or when the target is either a private or a non-private company. During the post-announcement period, bidding company however generally records significant negative AR in all categories except when the target of the proposed acquisition is non-private company. On the other hand, the bidder's CAR on overall sample of acquisition by cash, indirect acquisition or acquisition where the target is non-private, do not show any significant results, in the pre- and in the post-announcement periods. As for the direct acquisition or when the target is a private limited company, the CAR appears negative in both periods.

In general, the results on acquisition proposals by cash obtained from this analysis tend to differ with Jensen and Ruback's (1983) conclusion that bidding firms' shareholders do not lose from takeovers. Other study however, like Travlos (1987), obtain results similar with the current study where cashbased bidder records insignificant returns around or on the announcement date itself. However, the bidder's insignificant AR or CAR results obtained from acquisitions involving cash have been encountered before (Chang 1998).

| Estimation Period               | Direct                      | Indirect                              | Private                                     | Non-Private                              | Overall                  |
|---------------------------------|-----------------------------|---------------------------------------|---|--|--------------------------|
|                                 | Pr                          | e-Announce                            | ment (by                                    | cash)                                    |                          |
| (-60,+60)                       | -ve                         | None                                  | +ve   | None                                     | +ve                      |
| (-30,+30)                       | -                           | -                                     | -   | -  | None                     |
| (-60,0)                         | -ve                         | +ve                                   | +ve   | +ve                                      | +ve                      |
|                                 | On A                        | Announceme                            | nt Date (b                                  | y cash)                                  |                          |
| (Day_0)                         | None                        | None                                  | None  | None                                     | None                     |
|                                 | Po                          | st-Announce                           | ement (by                                   | cash)                                    |                          |
| (-60,+60)                       | None                        | None                                  | -ve   | None                                     | -ve                      |
| (-30,+30)                       | -                           | -                                     | -   | -  | -ve                      |
| (0,+60)                         | -ve                         | -ve                                   | -ve   | +ve                                      | -ve                      |
| Estimation Period               | Direct                      | -Announcen<br>Indirect                | Private                                     |  | Overali                  |
| ( ( 0 ( 0)                      |                             |                                       |   |  | Ovulan                   |
| (-60,+60)                       | -ve                         | NA                                    | +ve   | uncertain                                | +ve                      |
| (-60,+60)<br>(-30,+30)          | -ve                         | NA                                    | +ve<br>-                                    | uncertain                                |                          |
|                                 | -ve<br>-<br>-ve             | NA<br>-<br>NA                         | +ve<br>-<br>+ve                             | uncertain<br>                            | +ve                      |
| (-30,+30)                       | -ve                         | -                                     | -<br>+ve                                    | uncertain                                | +ve<br>+ve               |
| (-30,+30)                       | -ve                         | NA                                    | -<br>+ve                                    | uncertain                                | +ve<br>+ve               |
| (-30,+30)<br>(-60,0)            | -ve<br>On Ar<br>+ve         | NA                                    | +ve<br>t Date (by<br>+ve                    | uncertain<br>/ equity)<br>+ve            | +ve<br>+ve<br>+ve        |
| (-30,+30)<br>(-60,0)            | -ve<br>On Ar<br>+ve         | -<br>NA<br>nnouncemen<br>NA           | +ve<br>t Date (by<br>+ve                    | uncertain<br>/ equity)<br>+ve            | +ve<br>+ve<br>+ve        |
| (-30,+30)<br>(-60,0)<br>(Day 0) | -ve<br>On Ar<br>+ve<br>Post | NA<br>nnouncemen<br>NA<br>R-Announcer | -<br>+ve<br>t Date (by<br>+ve<br>nent (by e | uncertain<br>/ equity)<br>+ve<br>:quity) | +ve<br>+ve<br>+ve<br>+ve |

TABLE 9. Summary of the bidder's significant AR acquisition by cash and equity on all scenarios

Direct acquisitions that target private limited company are most popular in Malaysia as revealed by preliminary findings. In the aspect of competition for corporate control, the popularity of private limited company as the choice in acquisition could be possibly due to the fact that private target is less competitive compared to other types of target in the market of corporate control and this is expected to affect the bidding company's returns from the takeover. Considering most of the targets in the sample of this study are private limited companies, it may suggest that most of the proposed acquisitions are consented proposals and therefore they are unlikely to portray the characteristics disciplinary bids. Consented proposals may lead to over pricing and this could subsequently affect the bidder's returns unfavourably.

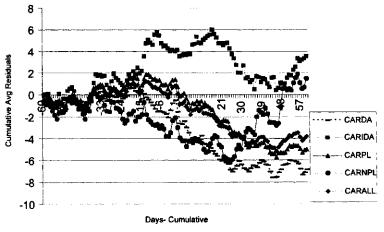
Private companies are typically controlled by large shareholders who participate closely in management (La Porta, Lopez de Silanes & Shleifer

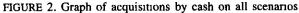
| CAR       | Direct | Indirect   | Private      | Non-Private | Overall |
|-----------|--------|------------|--------------|-------------|---------|
|           |        | Pre-Anno   | uncement (b  | y cash)     |         |
| (-60,+60) | -ve    | None       | -ve          | None        | None    |
| (-30,+30) | -      | -          | -            | -           | None    |
| (-60,0)   | -ve    | None       | None         | None        | None    |
|           | · · ·  | On Annound | cement Date  | (by cash)   |         |
| (Day 0)   | None   | None       | None         | None        | None    |
|           |        | Post-Anno  | ouncement (b | y cash)     |         |
| (-60,+60) | -ve    | None       | None         | None        | None    |
| (-30,+30) | -      | -          | -            | -           | None    |
| (0,+60)   | -ve    | None       | -ve          | None        | -ve     |

TABLE 10. Summary of the bidder's significant CAR of acquisition by cash and equity on all scenarios for a sample period of 1995 -2000

Pre-Announcement (by equity)

| CAR       | Direct | Indirect   | Private      | Non-Private | Overall |
|-----------|--------|------------|--------------|-------------|---------|
| (-60,+60) | None   | NA         | None         | None        | None    |
| (-30,+30) | -      | -          | -            | -           | None    |
| (-60,0)   | -ve    | NA         | None         | None        | None    |
|           | (      | On Announc | ement Date ( | by equity)  |         |
| (Day 0)   | +ve    | NA         | +ve          | +ve         | +ve     |
|           |        | Post-Anno  | uncement (by | / equity)   |         |
| (-60,+60) | +ve    | NA         | +ve          | None        | +ve     |
| (-30,+30) | -      | -          | -            | -           | None    |
| (0,+60)   | +ve    | NA         | +ve          | +ve         | +ve     |





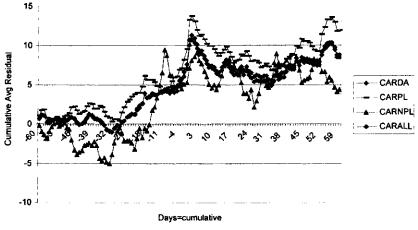


FIGURE 2. Graph of acquisitions by cash on all scenarios

1999). The controlling stake held by the large shareholders in the private targets makes them well placed to receive and evaluate information on the value of the proposed merger. Their in-depth firm knowledge also better places them to evaluate the merits of the proposed merger. Bidders usually do not offer shares when they believe their shares are undervalued and targets only accept cash when their private assessment of their own share value is less than the offer. The latter seems to be the case and most obvious in the direct acquisition by cash whereby the bidder's AR and CAR record significantly negative values in the pre- and post-announcement periods. Such a situation also can be associated with the hubris phenomenon where the target is over valued as a result of the bidder's pride.

In competitive environment, the target seems to have the edge over the bidder especially when it is a cash deal. The higher valuation of the bidder over the target's true economic value could lead to the winner's curse phenomenon in takeover bids (Roll 1986). Berkovitch and Narayanan (1993), using the basis of value changes, indicate that when agency problems or mistakes are associated with takeover or acquisition, total gains are negative. Because gains to targets are positive, the returns to the acquirer or bidding firm would necessarily be negative.

Agency problems may result from a conflict of interest between managers and shareholders and debt-holders. The proposed acquisition by cash may be interpreted differently by shareholders if they evaluate the proposal based on the free cash flow theory perspective. The shareholders may prefer the acquisition to be made by borrowing as to maximize the firm's ability to attract funds from the capital market. At the same time, the shareholders would have expected that the excess internal funds of the company are to be used in ways that could benefit them the most. Over the same issue, the management team on the other hand may want to reserve the firm's ability to borrow for future investments. This conflict may lead to the company not being able to run as it should be and the management team may think that they are being deprived from performing their task professionally. Investors would definitely react negatively if they sense such a conflict exists in an acquisition bid.

The pre-takeover performance of the target could also be a contributing factor to the way the bidder's returns react to the announcement. Pastena and Ruland (1986) point out that a lot of acquired firms are financially distressed and that for these firms a merger or acquisition is the alternative to bankruptcy. Solvency also seems to be an important feature to predict takeover targets as confirmed by empirical research conducted by Clark and Ofek (1994) suggest that the too high leverage position of the target has significant negative impact on the acquirer's financial structure after the acquisition. This naturally, would be negatively translated into the bidder's prices as a reaction from the investors. Though this could be one of the reasons for the bidder's returns to react negatively after the acquisition, further research is recommended to confirm on this argument especially in the Malaysian market scenario.

While the acquisitions by cash as the method of payment have shown no significant abnormal returns, the acquisitions by equity have recorded the highest on the announcement date. This may suggest that KLSE is reasonably efficient in terms of the speed of information as revealed by the significant immediate declines of the bidder's CAR from the highest level reported on the announcement date. This is consistent with Keane (1985) who refers market efficiency to two aspects - the speed at which new information is impounded into security prices, and the quality or correctness (direction and magnitude) of the price adjustment in reflecting new information. Keane (1985) further suggests that if the market is deficient in terms of the speed and quality of its reaction, the informed and alert observer would have little difficulty in profiting from the situation. The significant positive values on the announcement of acquisition by equity, in fact again may give an indication that such announcement gives positive information concerning a forthcoming corporate takeover is considered 'good' news for the shareholders of bidding firms and are value relevant. It also signal low valuation on targets or the use of equity could mitigate the adverse selection of overpayment as quoted by Hirshleifer (1995). The CAR significant positive reactions on the acquisition by equity are also recorded for direct, private and non private on and after the announcement.

### CONCLUSION

Based on the above results, Malaysian investors generally appear not to be in favour of acquisition in which method of payment is purely cash, either it is to be done directly by the bidding company itself, or that the targets are private limited companies. But, they are in favour in acquisition of which the method of payment is purely equity to be done directly by the bidding company itself. The same goes for acquisition that targets private limited company. The significant positive reaction shown on proposals by equity could signal low valuation on targets or the use of equity could mitigate the adverse selection of overpayment as quoted by Hirshleifer (1995).

As a whole and if the results are to be based on the overall sample of the acquisition by cash proposals, it is fair to conclude that Malaysian investors generally do not favour cash-based acquisition as shown by significantly negative results on the bidder's average residuals after the announcement date. The investors' negative reaction to such announcement may give an implication that there are agency problems and winner's curse phenomenon associated to the acquisition apart from its method of payment. The bidder's failure to convince the investors that the proposed acquisition by cash could generate positive gains, be it in the form of synergistic value or in the form of economic value, could possibly is the other reason for the investor's negative reactions. However, the significant positive results on the bidder's average residuals on acquisitions by equity after the announcement may give an implication that the use of equity conveys favourable information about the bidding firms.

The insignificant results obtain on the announcement date on acquisition by cash itself may give an indication that such announcement do not really bring "surprisingly good news" to investors, possibly due to the "proposal" nature of the announcement or that the information about the acquisition has been leaked into the market long before the announcement. However, the significant positive values on the announcement of acquisition by equity, in fact again may give an indication that such announcement gives positive information concerning a forthcoming corporate takeover is considered 'good' news for the shareholders of bidding firms and are value relevant.

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