Takeovers: who wins?

In this market, it can pay to be a victim

The shareholder wealth consequences of takeover activity are important in determining whether a free and active market for corporate control is beneficial to the economy. PHILIP BROWN and RAYMOND da SILVA ROSA report on a study of takeover activity and shareholder wealth between 1974 and 1995.

Proponents of an active takeover market contend that it fosters wealth-creation by increasing the probability that inefficient use of corporate assets attracts a takeover bid from alternative management teams which profit by achieving a higher return on those assets. This view implies that if the resulting returns to the shareholders of bidder firms and their target firms are positive, then takeovers are, on average, value-increasing investments.

In Australia, Walter (1983) and Bishop, Dodd and Officer (1986) tested the accuracy of this characterisation of the takeover market by measuring the returns from takeover to both target and bidder firms. This study expands on that research by extending the period covered to include takeovers to the end of 1995.

Additional issues investigated include the effect of controlling for firm size when estimating takeover-related gains or losses for shareholders. Given that in Australian companies there is a negative association between firm size and share return – small capitalisation stocks typically perform better (Beedles, Dodd and Officer 1986) – we expect that controlling for firm size increases the measured gains from takeover to larger acquiring firms and decreases the measured gains to smaller target firms.

Sharemarket event studies are plagued by misspecification of the tests used to assess the significance of results (Barber and Lyon 1997). A particular strength of this study is the comparison of the performance of the experimental sample firms against the performance of 1,001 control portfolios. This “randomisation” technique is free of many of the misspecification problems to which earlier studies are prone. The firms in the control portfolios are matched on firm size and survival with the experimental sample firms but are otherwise randomly selected.

THE SAMPLE
This study uses information on more than 2,500 takeover bids made between January 1974 and November 1995 for firms listed on the Australian Stock Exchange. Not all firms had ASX share-return data available and in many instances the outcome could not be determined conclusively. We review the share returns to bidders involved in up to 635 “successful” bids – those where the bidding firm acquired control of more than 50% of the shares in the...
target firm – as well as the share returns to target firms involved in 1,528 takeover attempts, 1,137 of which were successful.

Data on takeover offers before June 1985 come mainly from the takeovers database compiled by Bishop, Dodd and Officer under the aegis of the Centre for Independent Studies. Most information about post-1985 offers is from the “Current Takeovers” column in the Australian Financial Review, which reports takeover-related company announcements made to the ASX.

Sharemarket data are from the share price and price relative (SPPR) database compiled by the Centre for Research in Finance at the Australian Graduate School of Management and the Staxx Database compiled by the ASX. All share returns are adjusted for changes in the basis of quotation (eg, dividends issued and capitalisation changes).

RESEARCH METHOD

We measure the shareholder-wealth effects of takeover activity by reviewing the sharemarket performance of each sample firm over a seven-month event period centred on its bid-announcement month (henceforth, [-3: +3 months]). The wealth effects are measured after controlling for changes in the sample firms’ share prices that are unrelated to takeover activity.

Share prices respond to firm-specific events as well as to economic events that affect all firms in the market. Measuring the return achieved by the sample firms over the event window and subtracting the return achieved by the market portfolio over the same period yields the “abnormal return” to the portfolio comprising the sample firms. However, as noted earlier, share returns are also negatively correlated with firm size.

We control the empirical association of firm size with return by using the rate of return on a portfolio of firms in the same size decile (of which the sample firm is a member) as the estimate of the market rate of return. In other words, the use of the return to size deciles as a proxy for the market rate of return controls directly for the association of share return with market-wide movements and with firm size.

Significance testing is assessed by comparing the performance of our sample firms with the corresponding performance of 1,001 control portfolios, each consisting of firms matched on size-decile and survival with the sample firms but otherwise randomly selected.

The procedure to construct the control portfolios is illustrated by reference to the takeover bid for Blowpak Ltd, announced in December 1987. The event window is the seven-month period centred on the bid-announcement month, and is denoted by [-3: +3].

1 Identify the set \{C\} of all listed firms with price data available over the event window [-3: +3] months. Blowpak Ltd’s event window spans the period from the beginning of September 1987 to the end of March 1988. A total of 1,526 listed firms have return data available over this period.

2 Rank all firms in \{C\} in ascending order of size (defined as price per ordinary share as at the end of month [-4] multiplied by shares outstanding). Place the first 10% of firms in decile one, the second 10% in decile two and so on.

3 Identify the decile in which Blowpak Ltd falls. Blowpak’s market capitalisation of $8.5 million at the end of October 1987 places it in the 4th decile. There are 153 firms in this decile.

4 Define the expected return to all firms in the 4th decile as the mean (equally weighted) buy-and-hold return over the period September 1987-March 1988. The expected return is -51.59% (which reflects the impact of the sharemarket crash in October 1987). Blowpak’s return over this period is 26.3% and so its abnormal return is 77.9%; that is, the difference between its return and the average loss of the 153 firms in its size decile over the same period.

5 Calculate the abnormal return to each of the 153 firms in the 4th size-decile. (By construction, the total abnormal returns over the 153 firms sum to zero.)

6 Selecting randomly and with replacement, pick one firm from the cohort of 153 firms that comprise the 4th size-decile and allocate it to the first of the 1,001 control portfolios.

7 Repeat the previous step 1,000 times, each time placing the randomly selected firm into the next control portfolio in the sequence of 1,001.

8 Reiterate steps 1 to 7 for each target firm with price data available over its event window of [-3: +3] months.

Note that the above procedure matches the experimental sample firms with the firms in the control portfolios not just on size but on survival over the event window (see step 1). One advantage of matching on survival is that it mitigates the new listing bias that favours the experimental sample portfolio; if we did not match on survival, the control portfolios would include a
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proportionate number of IPOs, which typically exhibit lower-than-average performance once they are traded.

On the other hand, the reported abnormal returns are not replicable in real time because our matching procedure requires ex-post knowledge of survival. However, given that matching on survival lowers the probability of the experimental sample firms displaying relatively higher performance, any ensuing bias is in the direction of underestimating the abnormal returns accruing to the experimental sample firms.

PRE-BID SHAREMARKET PERFORMANCE

One result consistent across most studies is that bidding firms tend to achieve abnormally good performance in the months leading to the takeover offer. Our results add weight to this widespread finding.

Over the period [-36: -6] months, our sample of 551 acquiring firms achieved a mean abnormal return of 77.6%. However, this result is largely driven by the firms involved in just 12 bids that recorded a mean abnormal return of 2,117.7% over the same period. These bids aside, the acquiring firms earned a mean abnormal return of 31.9%, a performance unsurpassed by any of the 1,001 control portfolios.

As indicated, the mean abnormal return may not reflect the typical performance of the firms in our sample because it is influenced by extreme values. We address this concern by comparing the median abnormal return to our sample of bidding firms against the median abnormal return to the firms in the control portfolios. All 1,001 control portfolios had a median abnormal return lower than the median return recorded by our sample of bidding firms.

The sharemarket returns to a sample of 1,371 target firms over the period [-36: -6] months show a different picture. The mean abnormal return to these firms is -23.3% and the median abnormal return is -31.6%. All 1,001 control portfolios comprising firms matched with the targets on size and survival recorded a better performance on both measures.

In sum, the sharemarket evidence unequivocally supports the hypothesis that firms that make takeover bids are, in general, firms that have done well and look to the takeover market as a means of building on their performance. Target firms, on the other hand, typically display sharemarket returns that rank them firmly in the bottom half of corporate achievers.

ANNOUNCEMENT-PERIOD RETURNS

The returns achieved by target firms over the period [-3: +3] months, relative to the bid-announcement month, reveal a remarkable turnaround in the fortunes of these firms’ shareholders. Over the seven months, our sample of 1,528 target firm earned, on average, an abnormal return of 25.5%, with a median abnormal return of 15.7%. On both measures, the performance is unsurpassed by any of the 1,001 control portfolios. These abnormal returns translate into a gain of $15 billion earned by the shareholders of target firms directly as a result of takeover activity.

Our sample of 635 firms that made successful takeover bids fared less spectacularly but still experienced positive abnormal returns over the same seven-month period. Their mean abnormal return is 5%, which, given their respective market capitalisation at the beginning of the event-period, corresponds to a gain of $5 billion.

Bidders are generally around five to eight times the size of their targets and so even an equal sharing of the gains or losses from takeover between acquiring firm shareholders and their target counterparts would have less impact on the share returns to acquirers. Another contributing reason for the lower recorded return to acquiring firms is that investors may have impounded a proportion of the value of anticipated bids in the acquiring firms’ share prices before the start of the period over which we measure returns, as would be the case if the bidder has established a reputation for value-enhancing growth by acquisition.

Support for the last proposition is found in a comparison of the bid-period returns (returns over the seven-month period centred on the bid-announcement month) to firms that made four or more successful bids over the period surveyed and to firms that made just three, two or one successful bids. The firms that made four or more successful bids earned an average takeover-related return of 3.9% while the less-frequent bidders earned 7.4%. This result is consistent with the view that the market builds the value of future bids into the price of firms expected to be bidders in the takeover market.

A closer review of the bid-period returns indicates that bid premiums have declined over the past 12 years. The average bid premium earned by target firms for bids announced over the period from January 1974 to June 1985 (the period covered by Bishop, Dodd and Officer) is 29.7% as measured over seven months centred on the bid announcement month. The median bid premium is 18.7%. For the 10 years to November 1995, the average bid premium is 19.7%, with the median bid premium being 11.3%.

The decrease in bid premiums is not being captured by the shareholders of the acquiring firms. Over the period from January 1974 to June 1985,
acquiring firm shareholders earned an average takeover-related return of 5.7% over the seven-month period centred on the bid-announcement month. For the 10 years to November 1995, the average takeover-related return is 3.4%. The decrease in takeover-related gains over the past decade to both bidder and target firms is consistent with impediments to takeovers making it more difficult for investors to gain from takeover bids.

Notwithstanding this, several studies of US and UK acquiring firms have found that acquiring firms exhibit a negative drift in their abnormal returns in the post-merger period over the long run (e.g., Agrawal, Jaffe and Mandelker 1992; Franks, Harris and Titman 1991; Gregory 1996; Limmack 1991). Pertinently, we find that after controlling for firm-size and survival, this negative drift is eliminated from our sample of acquiring firms. In sum, after controlling for all relevant factors, the sharemarket evidence strongly supports the proposition that a free and active market for corporate control yields substantial benefits to all investors.

NOTE: Not all 635 successful acquirers had share-price data available over the period [-36, -6] months. In most cases this is because their respective event window began before January 1974, the first month for which we have share-price data.

REFERENCES
Bishop, S., P. Dodd and R.R. Officer, 1986, "Australian Takeovers: The Evidence", The Centre for Independent Studies, St. Leonards, NSW.