

CONTROL PREMIUM STUDY 2017

Insights into market dynamics, financial dynamics and other factors.



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FOREWORD

Welcome to RSM's 2017 Control Premium Study.

In 2010 we released our inaugural study in which we analysed the implied control premiums observed in 212 successful takeovers and schemes of arrangement completed between 1 July 2005 and 30 June 2010. In 2013 we expanded our data set to 345 transactions, covering the 7 year period ended 30 June 2012.

In this study, we have updated our analysis to include successful takeovers from the 2013, 2014, 2015 and 2016 Financial Years (FY), together with takeover offers initiated prior to the end of FY2016 and now successfully completed. This additional data has expanded our data set to 463 transactions covering the 11 year period ended 30 June 2016.

The results of our analysis indicate that control premiums were influenced by a number of factors including:

- Industry sector
- Consideration type
- Timing within the economic cycle
- Toehold (extent of existing acquirer holding in the target)
- Size/market capitalisation
- The relationship between the prior 52–week high and the initial level of offer tabled

When considering change of control transactions, the control premium is a fundamental component of value and when faced with a volatile economic environment, it is critical that directors and investors duly consider this component when assessing equity values for potential Mergers and Acquisitions (M&A) transactions over FY2017 and beyond.

We hope you find the results of our study of interest and value. Should you seek further information or wish to discuss our findings in more detail, please contact the authors.

Andy Gilmour, Glyn Yates and Ian Douglas









OUR METHODOLOGY AND KEY FINDINGS

METHODOLOGY

RSM has analysed successful takeover offers and schemes of arrangement completed between 1 July 2005 and 30 June 2016 for companies listed on the Australian Securities Exchange (ASX).

We have calculated the implied control premium as (offer price – share price)/share price, based on the closing share price of the target company at 20, 5 and 2 days pre and post the announcement of the offer. Our analysis and commentary is, however, primarily focused on 20 day pre-bid premiums, which, in our view, are less likely to be influenced by bid speculation. Accordingly, we consider the 20 day pre-bid data as providing the most reliable observation of any control premium implicit in the transaction.

In the period of our review, we observed a total of 617 transactions. Of these, 154 transactions were excluded due to insufficient available data to calculate control premiums based on pre-bid share prices.

Where the offer included scrip of the acquiring entity, the closing share price of the acquirer on the day of the offer has been used to calculate the value of the offer.

In our 2010 study we commented that the control premium distribution resembles a "bell-shaped" curve. The data, however, is not within generally accepted limits of a "normal distribution" in either the original studies or the new overall sample, which is more abnormal. Consistent with our former studies, the 2017 results exhibit bunching, fat tails and a positive skew. The most noticeable consequence of this data pattern is that median values lie consistently below the average (mean). However, the directional findings, whether using averages or medians, are largely unaffected, especially when compared with the holistic data set.

KEY FINDINGS

2013 study v 2017 study – a comparison

- The average implied control premium at 20 days prebid for the Australian market lies at 34.5% (based on transactions completed in the period FY2005 – FY2016). We note this is 0.8% lower than the average control premium observed in our 2013 study of transactions completed in the 7 years to FY2012.
- The median control premium offered at 20 days prebid in Australian transactions has also decreased from 29.0% in our previous study to 27.0% in our 2017 study. This represents a decrease in control premiums in the four years ending FY2016.
- The average implied control premium peaked at 45.9% in FY2010, before experiencing a moderate decrease to 40.1% in FY2011, 39.5% in FY2012 through to 28.3% in FY2016.
- Consistent with our previous studies, observed premiums continue to fall in the days immediately pre-bid, which may indicate bid speculation and / or information leakage in the market.
- Industry sector continues to significantly influence the control premium required to complete a successful transaction. Sectors that are traditionally priced and valued on upside potential revealed considerably higher premiums (e.g. metals and mining, biotechnology and energy) than those where valuations are more typically limited to asset base (e.g. real estate and financial institutions).

- Scrip deals, which offer "relative" consideration, continue to attract lower premiums than cash only deals, where consideration is absolute. However, the average control premium for scrip deals has increased 1.4% since our 2013 study to 31.3% for the 11 year period ended FY2016. Conversely, the average control premium for cash only deals has decreased 1.9% to 35.9% in our current study. This trend reflects a rising popularity of scrip deals for small transactions and in volatile industries such as mining and exploration which, we note, represent a larger proportion of transactions in the FY2013 to FY2016 financial years as compared to prior periods.
- Size matters there appears to be a strong negative correlation between market capitalisation and the level of control premium paid. Our analysis shows the control premium declines as target market capitalisation increases and that the control premium is appreciably higher in transactions involving targets with a market capitalisation of less than \$50 million.
- Behaviour of acquirer The similarity between the 52 week high of the target's share price prior to the announcement of the offer and the offer price indicates that there is a clear correlation between the two.

Control Premiums	2013 Study	2017 Study	Increase / (Decrease)
Number of transactions	345	463	118
Average Control Premium			
20 days pre announcement	35.3%	34.5%	(0.8%)
5 days pre announcement	29.3%	28.3%	(1.0%)
2 days pre announcement	26.5%	26.4%	(0.1%)
Median Control Premium			
20 days pre announcement	29.0%	27.0%	(2.0%)
5 days pre announcement	29.3%	23.3%	(6.0%)
2 days pre announcement	26.5%	21.1%	(5.4%)

Average and median control premiums 2013 & 2017 studies





Average and median control premiums by financial year of bid as at 20 days Pre-Bid

CONCLUSION

In this study we have explored factors relating to the target, which may exercise influence on the control premium required to be offered to shareholders of ASX listed companies to encourage them to approve change of control transactions.

Our results indicate that certain attributes such as industry sector and size affect or influence the observed control premium. Other factors such as consideration type and capital structure may influence the control premium in their own right, but we consider the distinction between primary and derivative influence is difficult to assess.

Interestingly, our analysis shows that existing knowledge of a target (as a consequence of a toehold) can lead acquirers to pay significantly higher premiums than are otherwise observed – perhaps as a result of lower perceived business risk in the transaction.

Finally, underlying the specifics is the external influence of the economic cycle, which creates the fear and optimism

that fuels risk appetite, and helps drive share prices. Thus we do not find it surprising that our analysis indicates there is a clear correlation between the offer price in M&A transactions and the prior 52–week share price high of the target company, as the 52–week high could be perceived to provide both a familiar and recent benchmark of value to acquirers and acquirees alike.

In our opinion the control premium is influenced by these factors and to varying degrees, at different times within the economic cycle. The post–GFC commodity boom saw control premiums at their highest levels between FY2009 and FY2012. Since that time, control premiums have been trending back towards pre–GFC levels, so it will be interesting to see what level of control premiums are paid in FY2017 and beyond.



DIFFERENT INDUSTRIES DEMAND DIFFERENT CONTROL PREMIUM

Our analysis highlights the considerable variability in average pre-bid control premiums across different industry sectors. While control premiums for nearly all industry sectors reduced slightly in our current study on both an average and median basis, we observed an increase in the 20 days pre-bid premiums in the metals and mining and energy sectors from our 2013 study.

Sectors such as metals and mining, health care and telecommunications, IT and software exhibit above average control premiums (ranging between 30% and 40%) whereas control premiums in the real estate, industrials and banks and diversified financials sectors exhibit a tight range around 15% to 25%. Control premiums observed for energy stocks begin above the overall average at 20 days pre-bid and 5 days pre-bid but fall rapidly to below the average 2-days pre bid suggesting a high level of bid speculation relating to these stocks.

The higher premiums in the metals and mining, energy, technology and health care sectors may suggest that bidders in these sectors are focusing on the future cash flow potential of businesses. However, buyers of financial and property stocks are paying only for assets in place. These conclusions are broadly supported by the typical valuation methods used in these sectors and a comparison of control premium to price-to-book ratios where assets tend to be "marked-to-market". For example, in our latest study, prebid real estate stocks were trading at a price-to-book ratio of 1.0x and attracting an average control premium of 16.9%, whereas in the 2013 study, the average control premium was 20.7% and the price-to-book ratio 0.8x.

In both our 2013 analysis and our latest study, the bid price appears to "anchor" on the asset value, but stocks that were previously acquired at a modest premium to asset value are now being acquired at a discount. It seems that the reduction in real estate control premiums from 20.7% in our 2013 study to 16.9% may reflect the broader perception of asset values returning to their normal valuation, following a period of perceived under valuation immediately post GFC – particularly in the real estate sector.

The variability in control premium between industry sectors means the relative proportion of transactions from different industries has a major bearing on the overall average control premium observed. We note, however, that the split of transactions across sectors has not varied greatly since our previous study. Our data suggests that cyclical / volatile sectors such as metals and mining (28.9%), energy (12.5%) and technology (8.9%) combine to represent 50.3% of transactions. It could be argued that such a high proportion of transactions from these sectors may lead to control premiums in the Australian market varying more over time.



Our analysis highlights the considerable variability in average pre-bid control premiums across different industry sectors.

Industry	Number of transactions	Averag	Average Control premium		
		20	5	2	
Metals & Mining	134	35.8%	32.4%	29.9%	
Energy	58	37.6%	29.7%	25.0%	
Health Care	23	41.2%	43.5%	39.2%	
Real Estate	30	16.9%	15.6%	14.2%	
Banks and Diversified Financials	34	23.4%	22.2%	24.4%	
Industrials	52	38.6%	28.7%	25.7%	
Telecommunications, IT & Software	41	46.2%	30.6%	35.4%	
Other	91	31.0%	22.7%	20.1%	

Average control premium (FY2006 – FY2016) segmented by industry



Median Control Premium by Industry

CASH OR SCRIP: DOES CONSIDERATION TYPE MATTER?

Cash remains the most popular form of consideration, with the relative proportion of 100% cash takeovers increasing compared to other forms of consideration. Cash accounted for 317 (68.5%) of the transactions in our current data set which compares 67.5% in our 2013 study. Scrip transactions fell as a percentage of overall transactions in the current study from 24.5% to 23.5% with 109 transactions completed using scrip only consideration. The remaining 37 transactions comprised both cash and scrip.



Transactions by consideration type

Our current study reinforces the findings of our previous studies that control premiums in cash transactions are higher than scrip transactions. The average control premium at 20 days pre-bid in cash transactions was 35.9%, considerably higher than scrip and scrip/cash transactions, where the observed premiums were 31.3% and 31.2% respectively.

Cash is an absolute measure of consideration whereas scrip is relative. This may explain why control premiums in scrip transactions appear to be lower than cash transactions as:

- From a business-specific perspective, target shareholders can expect to participate in synergistic gains in the combined entity.
- From a general market risk perspective target shareholders effectively receive an option to benefit from market risk volatility.

We note that the average control premium for scrip has increased by more than 1% in comparison to the 2013 study, however it is likely this is simply attributable to a change in industry mix in which the transactions have occurred.



Control premiums segmented by consideration type current versus previous study (average and median premiums measured at 20 days pre-bid)



TIMING WITHIN THE ECONOMIC CYCLE

The expansion of our dataset has enabled us to perform an analysis of the control premiums over 11 financial years, during which time Australia experienced a mining boom (2005 – 2012), the global financial crisis (2007– 2009) and the recent post–boom 'hangover' (2013–current). Our analysis provides further insight as to how control premiums have fared through these distinct economic periods.

Our expanded analysis indicates:

- The number of completed transactions peaked at 68 during FY2007 and fell to a low of 25 in FY2009 as capital markets effectively froze during the GFC. Transaction levels then rose in parallel with the mining boom through FY2010 (45), FY2011 (61) and FY2012 (52) before falling back to levels seen during the GFC in FY2013 (26), FY2014 (37), FY2015 (26) and FY2016 (29).
- The lowest average control premium of 25.7% was in 2008, while the lowest median control premium of 14.0% was in 2013.

- Following a period of relatively high activity and lower premiums from FY2006–FY2008, FY2009 saw average and median control premiums both rise considerably on low transaction volumes.
- In FY2010, the average control premium continued to rise and peaked at an average of 45.9% and median of 42.9%.
- In FY2011, the average control premium began to contract, reducing to 40.1% and again to 39.5% in FY2012.
- From FY2013 onwards, a period of reduced transaction activity has occurred while average premiums have returned to normal levels, near the 34.5% 11 year average.



Average and median control premiums by financial year of bid as at 20 days Pre-Bid

We consider that several factors explain the control premium volatility over the 11 year period analysed, namely:

- In FY2008, the lowest average control premiums recorded coincided with the ASX reaching record levels, as acquirers appeared to baulk at paying 'normal' premiums over traded share price. This may have reflected a belief that a certain premium was already inherent in the share prices with the ASX at all-time highs during this time.
- Equally, while the ASX and other global markets continued to fall heavily during the GFC (circa 2009), average and median control premiums increased as buyers may have considered fair value in the context of lower traded market prices and were therefore willing to pay a higher premium.
- The ASX recovered strongly in FY2010 increasing from lows of circa 3,200 to 5,000 points and with that, came a sense of optimism that the GFC may be over. In that environment and with share prices yet to reach their FY2008 highs, buyers appeared to look beyond share prices to future cash flows and were willing to pay a higher premium in order to get deals done. By FY2011, optimism had waned and control premiums pulled back with acquirers becoming more cautious.
- The impact of an active metals & mining sector in FY2010, FY2011, FY2012 (respectively 35.6%, 27.9% and 32.7% of all transactions) has influenced the control premium, which, in this sector, has been impacted by exchange rates. In essence capital provision in mining is highly internationalised and the attractiveness of deals relates in part to the AUD/USD exchange rate. The rate rose from between \$0.77 and \$0.94 in FY10 to between \$0.94 and \$1.10 in FY2012. In those 3 financial years the average control premium for mining at 20 days pre-bid fell from 48.5% to 22.4% and the median from 37.0% to 21.4%, illustrating how international competitiveness may also impact the level of premium available to acquiree shareholders. Conversely, in the period subsequent to FY2012 the AUD/USD exchange rate has fallen to a range of \$0.70 to \$0.77 in FY2016; which was met with a corresponding rise in control premiums in the mining sector, with an average and medium premium of 36.8% respectively. The movement in the premium in this sector, given the relatively high proportion of mining transactions, has accordingly impacted the overall premium.

- In FY2013, a dramatic fall in commodity prices brought about an end to the mining boom in which the lowest annual median control premium of 14.0% was recorded. This reflected a higher number of outliers in the sample as well as potentially, a sense of uncertainty among acquirers due to the volatility of commodity prices.
- Since 2013, median control premiums have returned to normal levels while average control premiums have gravitated around the 11 year average of 34.5% as Australia contemplates the post-mining boom 'hangover' and which industries might fill the void left by resources. It will be interesting to see how control premiums perform as the Australian economy endeavours to navigate this new economic cycle and stimulate growth, particularly given the uncertain global political climate brought about by recent election results in traditionally stable countries such as the United States and the United Kingdom.



THE TOEHOLD

Our most recent study confirms our finding in the previous studies that control premiums vary considerably based on the level of existing shareholding in the target, with higher premiums being paid when acquirers have a material stake in the target. Our analysis indicates when buyers already hold between 10% and 50% of the target's equity, the average control premium is around 40% and the median between 30% and 35%. In contrast, when the acquirer has a lesser or no shareholding, the average premium is around 30% and the median premium in the range of 20% to 25%.

Our findings are consistent with the view that, when considering a change of control transaction, an existing shareholder, who may well have board representation, is likely to be better informed and more committed to the target.

The knowledge of operational strengths and potential of the business, together with the associated ability to quantify the risks and rewards of ownership are likely to be amongst the factors which lead the informed buyer to pay more for perceived benefits of synergy. In addition, behavioural finance research has shown that greater commitment to a target does lead to a greater degree of "optimism bias" often leading managers to overestimate their capabilities and to overpay for acquisitions. The table below indicates that the highest average and median premiums are paid when the existing shareholder's toehold is between 10 – 20%; being 40.4% and 33.3% respectively. This would indicate that existing shareholders are prepared to pay the highest premium when it results in their stake increasing from being a substantial shareholder to having significant influence, or a greater than 20% interest. When the existing shareholder already has significant influence, they may not be prepared to pay as higher premium to simply increase this influence or they may already have enough influence to be able influence the shareholder vote in their favour.

Toehold	Number of transactions	Average Control premium	Medium Control premium
0	189	29.85%	22.81%
>0%<=10%	42	31.81%	30.48%
>10%<=20%	137	40.42%	33.33%
>20%<=50%	56	36.89%	30.22%
>50%	39	35.31%	24.29%

Average and median control premium (FY2006 - FY2015) segmented by toehold



SIZE DOES MATTER

To explore the relationship between control premium and the size of the target, we have classified targets based on their market capitalisation, and then analysed average and median control premiums for each band 2, 5, and 20 days pre-bid. Market capitalisation was computed 20 days before bid announcement to mitigate any bid effects on value. Band sizes of less than \$25 million (m), \$25m to \$50m, \$50m to \$100m, \$100m to \$500m and greater than \$500m were used to achieve statistically reasonable sample sizes. In addition, breakdowns of less than \$12.5m and greater than \$1 billion were computed to explore effects at the top and bottom of the spectrum.

Our results show that, as size increases, the size of the control premium (average and median) decreases across all bands at all of 20, 5 and 2 days pre-bid. Our analysis shows that the starting values and the degree of change for the bands is significant: for entities of less than \$50m market capitalisation both average and median control premium at 20 days pre-bid is above 40% whereas, for entities of greater than \$500m market capitalisation this value is less than 25%.

A range of factors may explain this trend including:

- Larger firms are likely to be more heavily traded and closely scrutinised by analysts and market participants, than their smaller counterparts, which could lead to share prices more accurately reflecting intrinsic value.
- Smaller firms, by contrast, are less well followed by analysts and often less understood by market participants and may be subject to discounts relating to lower liquidity.



Average Control Premium by Market Capitalisation



The control premium when segmented by market capitalisation is also influenced by the industry mix within each size band.

At the lower end of the spectrum (below \$100m) we generally see much greater differences between median and average values suggesting considerable variability in control premiums offered with a significant number of upside outliers.

Where market capitalisation was below \$12.5m the premiums paid climb to 65% on an average basis at 20 days pre-bid, and do not fall below 40% at any stage pre-announcement. Whilst the sample is small (43 entities) our suspicion is that, allied with illiquidity and valuation difficulties, these entities may be targeted for the value of their existing listing – effectively as "shell" companies.

The control premium when segmented by market capitalisation is also influenced by the industry mix within each size band. For example metals and mining represents 28.9% of overall transactions but 48.9% and 31.5% respectively of transactions within the less than \$25m and less than \$50m bands. Energy, which represents 12.5% of overall transactions, constitutes 6.3% of transactions less than \$25m, yet 16.7% when market capitalisations reach up to \$50m. Similarly, telecommunications, IT & software which represent 8.9% of total transactions, represent 17.0% of transactions less than \$25m. As the control premium for metals and mining, telecommunications, IT & software and energy is generally higher than for other sectors, this mix will tend to increase the premiums in these size bands. This is particularly apparent given that these firms are the early stage exploration and R&D companies, which consequently makes it harder for the market to value them.



Median Control Premium by Market Capitalisation

🔵 20 Days Pre Announcement 🌒 5 Days Pre Announcement 🌒 2 Days Pre Announcement



BEHAVIOUR OF THE ACQUIRER IN DETERMINING THE OFFER PRICE

Our analysis has predominantly centred on exploring the relationship between fundamental factors and control premiums. However, as deals are ultimately made by people rather than entities, it is reasonable to surmise that behavioural and psychological influences may also have a significant influence on the metrics. One such factor considered in the 2009 US research paper A Reference Point Theory of Mergers and Acquisitions by Baker, Pan and Wurgler is that a prior 52–week high which is sufficiently close to the current market value to be relevant, may act as a key reference point for the bid price. This theory is supported by anecdotal evidence that the prior 52–week



Distribution of Bid Price around prior 52-week High (all data)

% Difference between bid price and prior 52-week share price high

No of Transactions

high is often reported in bidder and target statements and in the press. In addition, there is logic and symmetry in the argument that target and bidder boards, advisers and shareholders in the thick of the action of the deal, and with little time for detailed reflection, may "anchor" on a prior 52-week high as prima facie evidence of the underlying value of a stock and the quantum of a bid which may need to be offered to convince shareholders to relinquish control.

Accordingly, to examine this effect on bids, we have measured the prior 52-week high relative to the price 20 days prebid to avoid any circularity associated with bid speculation, and plotted the distribution of bid prices for all data around the prior 52-week high, calculated as follows:

> Bid price – Prior 52 week high Prior 52 week high

Our analysis indicates the overall data set shows a tendency for bid prices to be strongly correlated to the prior 52-week high price level across the spectrum of transactions.

Not surprisingly, as bidders attempt to attract target shareholders with an acceptable (but not overpriced) bid, the highest level of bids is between 0% and 5% above the prior 52 week high, and with 30% of bids between +/- 10% of the prior 52-week high.

We have also compared the relationship between control premium and the extent to which the 52– week high exceeds the price 20 days pre-bid.

From this analysis, we can see that when the share price of the target 20 days pre-bid is at or around the 52 week high, the average control premiums tend to be lower, and when that share price falls below the 52 week high, the average control premiums tend to increase.



Average & median control premium v prior 52-week High relative to targets share price 20 days pre-bid

Prior 52-week share price high relative to targets share price 20 days pre-bid

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