12 Takeover Activity, Investor Behaviour and Stock Market Data

Introduction

Like any investment, corporate takeover activity should be premised on shareholder wealth maximisation underpinned by *rational* profit motives. Before moving in on its *prey*, what the *predator* requires is a *bid price* per share. An *offer* based upon a comprehensive market valuation of the *target* company.

The following *objective* strategies based on long-run future earnings potential should be considered prior to takeover.

Business; Resource; Influence.

All too often, however, short-term *subjective* managerial motives determine acquisitions that frustrate the pursuit of shareholders' wealth, notably *satisficing* behaviour based on:

Growth; Prestige; Security.

History reveals that takeovers also have a tendency to destroy future returns and hence value. So much so, that it usually pays investors to cash in any price gain on a target company's shares, once the deal is completed, if not before. Predator firms often take a price-hit after acquisition from which they may never recover.

So, why is their a resurgence in takeover activity when so many indicators suggest that rational companies should not be empire building? Geo-political uncertainty, commodity prices (notably oil) unemployment, interest rates and inflation are all rising.

12.1 The Current Takeover Scene

One answer is that acquisitions were so few after the 2007 financial crisis. Companies adopted policies of introspection, shedding labour, reducing debt, cutting costs and dividends wherever possible. However, with a recent revival in trading fundamentals many are now awash with cash, which can be supplemented by new share issues or borrowing. With costs of borrowing (real interest rates) still so low, debt-financed takeovers of listed companies by overseas rivals are both cheap and much less risky than any other form of expansion. But is this good for a country's economy and sovereignty?

Many governments around the world (with France leading the way) protect their corporate sector from foreign predators through strong legislation on "public interest" grounds. However, in 2002 the UK rejected this policy, except for monopoly considerations. Since then it has been a free market for overseas investment, which is instructive to analyse.

Figures published in October 2006 by the United Nations Conference on Trade and Development (Unctad) revealed that Britain was the preferred global location by far for foreign investors. Moreover, their takeover targets were not small obscure companies "neglected" by the market but large "blue chips". Throughout 2004-5 you could identify UK household names listed on the London Stock Exchange that fell into foreign hands. Leading up to the 2007 financial meltdown, half the top UK 100 companies were vulnerable to acquisition, which meant the FT-SE100 (Footsie) would polarise between "the big six" headed by BP and the remainder.

Of course, British companies were also searching for investment opportunities. The London Stock Exchange itself bid for the Borsa Italiana. Barclays and the Royal Bank of Scotland (RBS) were also in competition for the Dutch bank ABN Amro (with RBS winning, thereby ensuring its downfall and government rescue post-2007). However, much activity was *domestic* with UK companies pursued by UK predators.

Today, many global analysts believe that the deregulated UK stock market (where cash is king) should be the first to experience a rise in share prices, driven by a takeover spree. However, opinions vary on the likely outcome.

Being a preferred destination for investment may have a beneficial effect on UK employment, job skills and growth. On the other hand, the ongoing takeover of UK plc may be catastrophic.

Apart from the political implications (loss of control) and economic consequences of essential and iconic interests disappearing, the opportunities for *sterling* investors (private and institutional) to avoid risk through a diversified portfolio of investments will be constrained.

At home: many utility companies and most top brewers are under foreign ownership. In the wake of the Pilkington takeover, when ICI came under Dutch ownership half of the UK paint market was monopolised, leaving little choice of shares in building and related materials, or several other domestic sectors.

Abroad: foreign bids that targeted UK companies with valuable international networks, such as O_2 and P&O, deprived UK stock market participants of global, low-risk investments in telecommunications and shipping. Cadbury, hardly a significant component of the domestic infrastructure but a global brand name nevertheless, is the latest in a long line of confectioners to fall into foreign hands.

Of course, global takeover activity is still not one way. Unfortunately, by 2011, UK predators were still spending less than twice overseas than their foreign counterparts were investing in Britain.

Overall: there is no shortage of acquisition specialists who advocate globalisation through corporate takeover. But it can affect the domestic capital market adversely by restricting the supply of shares (unlike new issues that expand the supply). If stock prices rise as a consequence of restricted supply and increased demand, this may also camouflage underlying fundamental, domestic economic problems until it is too late.

In financially difficult times, overseas companies are also more protective towards their own domestic market, when it comes to efficiency savings, cost cutting, shedding labour and factory closures. They may well depart the host country as quickly as they entered it. This is why in 2010 the UK's regulatory body, the Takeover Panel, began introducing new rules designed to restrict hostile foreign predators targeting British companies.

12.2 Investor Behaviour

In an ideal world, predator firms prefer to take advantage of low share prices in a depressed *bear* market to acquire businesses on the cheap that are ripe for takeover. This may be good news for existing shareholders and potential investors, if share price rises when a company is targeted.

However, irrespective of the state of the market (*bear*, *bull* or *stable*) individual investors must tread carefully. If a company is an obvious takeover target, any likely bid may already be reflected in its share price. If the bid fails, the price may fall. Companies can also be "virtual bid" targets where predators express an interest but never make a formal offer, a practice that has increased significantly over the past decade.

So, how do we identify a potential takeover target?

Companies grow organically, or through acquisition. Once they have reached saturation point in terms of their products or services but remain profitable and cash rich, they may need to diversify to maintain growth. Conversely, once a company has gone as far as it can without further investment, it may become a target.

In general terms, one of the best "buy" strategies for investors is to ride on the back of predator firms, particularly venture capitalists who seek out companies with valuable assets (including cash) whose share price is low. These can always be sold off, if the takeover goes wrong.

One method of spotting a potential target is to calculate the current *net asset value per share* (NAV) based on the asset backing (cover) and valuation ratios, which we discussed in Chapter Eleven. This measures the assets owned by the target company, less its liabilities. If the NAV per share is higher than the current share price (i.e. the ratio is greater than one) then asset strippers may be ready to pounce.

It is also worth tracking erratic share price movements, changes in shareholdings and executive management. If a company or consortium increases their stake, or acquires a seat on the board, it may signal a potential takeover.

Of course, you also need to consider when to sell shares. It may be necessary to get out quickly, particularly if the price is peaking. One profitable strategy may be to sell soon after a bid. However, you should always analyse any factors that could push the price further, such as the predator's intention to turn the business around, or a bidding war.

Overall, trying to spot a takeover and buying in is high risk. So, it is only advisable for the most active private investor who is not prepared to hold speculative shares for too long because:

- Very few takeovers go through, even if a bid is made.
- If there is a merger, the share price often takes time to recuperate.
- As mentioned earlier, history is also littered with takeovers that have failed to produce long term gains.

12.3 The "Golden Rules" of Investment

Activity 1

Whether investors wish to acquire a small number of shares for inclusion in their market portfolio, or the entire market capitalisation of equity to gain control of the company, a number of "golden rules" outlined in Chapter Five should underpin their decision.

Can you summarise them?

- The P/E ratio (earnings yield reciprocal) shows how a company's value is rated by the market in relation to the profit it earns. The higher the P/E, the greater the confidence that profits should rise. The lower the P/E, the greater the concern that profits are unsustainable.
- Alternatively, a low P/E ratio could reflect that a company's shares are undervalued by the market relative to its profit performance and be attractive to speculative investors.
- Shares in companies expected to produce rapid growth in profits and hence capital gains may offer low dividend yields. Higher dividend yields are usually offered by relatively mature, stable businesses with little prospects of increasing profits and dividend.
- Conversely, part of stock market law is "the higher the yield, the higher the risk". This applies particularly to shares where a higher dividend yield usually signals greater uncertainty over whether the dividend can be maintained in future, particularly if dividend cover is low.

As a general rule, if any investment offers a higher dividend yield or earnings yield (a low P/E ratio) with lower cover than similar investments, it is advisable to be cautious.

According to the legendary UK investor Jim Slater (who you also encountered in Chapter Five) it also pays to specialise in *growth shares* for long-term reward. In his text *Beyond the Zulu Principle* published in 1996 and still in print, the following investment criteria are specified.

(i) Mandatory criteria

a) A prospective P/E ratio no larger than 20 (an earnings yield of 5 percent).
b) For large investments, a prospective P/E ratio that is less than a company's future EPS growth. For smaller investments, a maximum P/E ratio that is 75 percent of growth rate.
c) Avoid speculative shares, namely those with the highest P/E growth factor (PEG), calculated by dividing the prospective P/E ratio by the estimated future growth rate in earnings per share (EPS). These are the ones to sell to improve the average safety margin of an investment portfolio.
d) Strong cash flow in terms of cash per share in excess of EPS for the last reported year and the average of the previous five years.

e) Low gearing (the proportion of debt in the firm's financial structure) preferably below 50 percent or, better still, positive cash balances.
f) High strength relative to the market in the previous twelve months coupled with strength in the preceding month or three months. Avoid shares that are flagging.
g) A strong competitive advantage.
h) No active selling of a company's shares by its directors.

(ii) Highly desirable criteria

a) Accelerating EPS preferably linked to a company's ability to replicate its successful activities.
b) A number of directors buying shares.
c) A market capitalisation in excess of £30 million.

(iii) Bonus criteria

a) A low price-to-sales ratio (PSR).
b) Something innovative.
c) A low price-to-research ratio (PRR).
d) A reasonable asset position (cover)

According to Slater:

"These criteria may be looked on as an investor's quiver full of arrows. They need not all be fired and some may miss their targets, but you do need to score a substantial number of bull's-eyes."

They may also be refined and extended by experience and new ideas.

Applied to takeover activity, the lesson to be learned from Slater's approach to investment confirms our earlier point. The likely rewards from an acquisition are determined by the analysis which precedes it. A company that selects another for the purpose of long-term growth by utilising a rigorous disciplined approach with in-built safety margins, such as asset backing, supported by strong financial criteria has little to fear. If the composite entity continues to grow profitably, patient investment will eventually be rewarded by an efficient stock market, which reflects its progress.

Conversely, our earlier discussion of the motives for acquisition drew attention to the dangers associated with company takeovers for short-term gain, merely because the target's shares were priced low by the stock market. Even though the predator may be purchasing at less than book value (negative goodwill) the acquisition may be worth more "dead than alive" since the realisable assets are worth less than this figure.

You will also recall that *subjective* reasons for takeovers, based on managerial growth, prestige and security, may be supported by an elaborate rationale without an *objective* analysis of the commercial factors involved. However, like any other investment:

An acquisition strategy is the art of the specific, where preparation meets opportunity. In the absence of luck, let alone judgement, the likely consequence of takeovers motivated by factors which exclude the growth of shareholders' earnings from the equation is that equity prices may collapse after the acquisition.

12.4 Acquisition Strategy and Stock Market Data

To illustrate how a predator firm can misinterpret the effects of an acquisition strategy concerning its own market performance, consider Table 12.1 that compares two takeovers.

	Noel plc		**Liam plc**	
	Pre – acquisition	Post – acquisition	Pre – acquisition	Post - acquisition
Target Company				
Number of shares	50,000		250,000	
Post-tax earnings	£500,000		£500,000	
Sale price	£5,000,000		£5,000,000	
Share price	£10		£20	
EPS	£1		£2	
Earnings yield	10%		10%	
P/E	10		10	
Predator Company				
Number of shares	1,000,000	1,500,000	1,000,000	1,250,000
Post-tax earnings	£1,000,000	£1,500,000	£1,000,000	£1,500,000
Market Capitalisation	£10,000,000	£15,000,000	£20,000,000	£25,000,000
Share price	£10	£10	£20	£20
EPS	£1	£1	£1	£1.20
Earnings yield	10%	10%	5%	6%
P/E	10	10	20	16.66

Table 12.1: Acquisitions and Stock Market Data

In Liam's case, with lower-priced shares and identical financial indicators, the stock market data of the composite entity obviously remains unchanged post-acquisition. In Noel's situation, all else is equal except that half the number of shares are purchased for twice the price, which also corresponds to that for the predator company. As a consequence, the acquirer benefits from a 20 pence (20 percent) increase in EPS. Thus, the earnings yield rises from 5 percent to 6 percent. In other words, the P/E ratio falls from 20 to 16.66. However, all this presupposes is that the share price remains constant after the acquisition, just like Liam.

First, it seems reasonable to assume that with a 20 percent improvement in EPS, share price will rise by a similar proportion, *i.e.* £4.00. Therefore, an increase in share price from £20.00 to £24.00 would produce a P/E uplift from 16.66 back to 20 (yielding 5 percent). Second, it is conceivable that price will rise even further, unsubstantiated by earnings or any other trading fundamentals but from *general* buying pressure (think dot.com and the nineties techno boom).

The psychology behind such "crowd" behaviour applied to capital markets is explained in classic texts by Mackay (1841), Shiller (2005) and Kindleberger and Aliber (2011) documented in Chapter One. The driving forces are either fear or, in this case, greed. The combined impact of increased EPS and a proportionally sharper increase in the price of equity produces a much higher P/E ratio than that which existed prior to takeover. Assuming share price stabilises at £28.00, you may care to verify that the P/E ratio will rise from 20 (pre- acquisition) to 28. This is equivalent to an earnings yield of approximately 3.57 percent.

Now visualise the composite entity making another acquisition, this time with a share price of £28.00 as opposed £20.00, with similar economic gains and then others, each with similar results. It would appear that a successful acquisition programme elicits vast capital gains for shareholders plus the growth, security and prestige which corporate management so desire.

Unfortunately, an element of what Mackay termed "delusion" is involved here. This stems from the confidence required on behalf of shareholders to sustain a high share price and therefore, a high P/E ratio premised not only on a rising earnings trend but extra buying pressure fed by the mania of eager investors. However, any factor that undermines this confidence can break the upward spiral and share price will fall. It may also precipitate a selling panic termed "revulsion" by Kindleberger and Aliber. Stock price reaches a bargain basement level and the predator company itself falls prey to takeover.

At least three factors can be identified. The first is the shareholders' perception of their individual positions in the spiral. Was equity received upon acquisition or purchased subsequently? If the former, the shareholder might still gain; if much later, the shareholder loses. The second factor arises because each subsequent acquisition must have a favourable impact upon the EPS of the composite entity. Since the company is not growing organically but by takeover, then either the size or the number of acquisitions must perpetually increase. Whichever applies, the strain on commercial competence grows and the probability of making uneconomic decisions increases. This final factor is crucial in the longer term.

Activity 2

We have explained how the combined impact of increased EPS and a proportionally sharper increase in the price of equity produce a much higher P/E ratio than that which existed prior to takeover. Both theory and evidence, based on the pioneering study by Myers (1976), have long suggested that acquisitions are therefore drawn from a limited spectrum; namely those companies with low P/E ratios.

Can you explain briefly why this is so, given our "golden rules" for investment?

What are the pitfalls of such an acquisition strategy?

You will recall that a low P/E ratio could reflect an undervaluation of equity by the market relative to profit performance, thus making a company an attractive investment proposition. Equally, however, the commercial viability of the merged entity may be dubious, in as much as a low P/E ratio can also reflect investor concern that a company might be unable to maintain its profits. But in order to sustain the P/E ratios, EPS must be sustained year after year. What Myers terms the *bootstrap* game. Consequently, an entity acquired for essentially non-commercial reasons must produce profitable performance for an extended period, a requirement that may prove impossible.

So, shareholder panic, a bad acquisition, or declining financial performance may break the spiral. This is not to say that all spirals will break, but even composite entities, which survive to acquire again and again, can be accused of short-termism, which is eventually doomed to failure.

Recalling Liam plc in the previous numerical example, the predator might be using a higher P/E ratio as leverage in relation to that of the acquisition merely to secure an immediate improvement in EPS. If this subsequently attracts speculative investors, share price may be *climbing a wall of worry*, which is not supported by trading fundamentals. The company will then find it difficult to discontinue its periodic addition of relatively low P/E candidates, even to provide an illusion of EPS growth, which justifies its share price.

Review Activity

The various approaches to takeover valuation using published financial data can be summarised as follows:

- **Balance sheet values** (relating to net assets).
- **Expectations** (relating to accounting income) in the form of:

(i) A going concern value using a normal rate of return on net assets, plus a goodwill calculation based on the capitalisation of super profits.
(ii) A profitability valuation using a P/E ratio applied to post-tax earnings.
(iii) A capitalised dividend valuation based upon dividend yield.
(iv) A present value (PV) calculation using a cash flow yield.

No one method is necessarily correct; rather they should be used when appropriate to provide a range of values for the purposes of negotiation. So, as a final illustration, let us evaluate a range of bid prices per share using the following information prepared by Blur plc for the acquisition of Gallagher plc.

Balance Sheet Revaluation	($m)
Share capital plus reserves	
(Comprising 80 million shares)	?
Liabilities	550
	?
Represented by:	
Fixed assets	1000
Current assets	600
	1,600

(i) Future profits after tax are estimated at $200 million
(ii) Future dividends cannot fall below $120 million per annum.
(iii) The normal rate of return on net operating assets for the industry is 12.5 percent.
(iv) Goodwill, if any, should be assimilated within four years.
(v) The market price of shares in companies doing an equally uncertain trade, financed by ordinary share capital (common stock) suggests that an appropriate P/E ratio is 7 (which is equivalent to a 14.5 percent return) and that dividend yield is 10 percent.

If we assume that the acquisition is premised on a rational strategic manoeuvre based on long-term profitability, a range of prices per share offered for Gallagher depends on four factors researched by Blur's management. Note that we have no cash flow data

- The minimum purchase price for the net tangible assets
- Evidence of goodwill
- Future profitability
- Dividend policy

1. Minimum valuation (net assets)

Net assets: $1,600 million minus $550 million = $1,050 million

Per share valuation: $1,050 million / 80 million = $13.125

2. Expectations

(a) Going concern (goodwill)

Using Equation (23) from Chapter Ten where V = A + [(P - rA) / m] subject to m > r

	Profits $m	Capital equivalent $m
Expected profits	200	
But a normal return (say 12.5% on assets of £1,050 million)	131.125	1,050
Superprofits (excess of expected profit over "normal" profit)	68.875	
Capitalised value of superprofits at 25%		
(i.e. four years purchase of goodwill)	68,875	
	0.25	
	or 68.875 x 4	275
Going concern value		1,325
Per share valuation:	$1,325 million / 80 million	= $16.56

(b) Profitability (P/E ratio)

Gallagher's anticipated post-tax profits are $200 million per annum and the expected P/E ratio is 7. If Blur's management assume that profits are constant in perpetuity, value may be defined using the following equations from Chapter Eleven.

(25) $V = \Pi(1 - t) \times P/E$ = Profits after tax x P/E ratio = Total market capitalisation

= $200 million x 7 = $1,400 million

Per share valuation: $1,400 million / 80 million = $17.50

(c) Dividend Policy (yield)

If expected dividends are $120 million and the maintainable yield is 10%, then using the formula for capitalising a perpetual annuity:

$$V = D / K_e = \$120 \text{ million} / 0.1 = \$1{,}200 \text{ million}$$

Per share valuation: $1,200 million / 80 million = $15.00

Recalling Activity 2 in Chapter Eleven, however, it is important to note that if the bid price per share is to accord with an earnings valuation of $1,400 million based on the Modigliani Miller (MM) law of one price, then the *actual* dividend after takeover should be $140 million with a corresponding uplift to the per share valuation. This is confirmed by solving for D in the following equation

$$V = D / K_e = \$1{,}400 \text{ million} = D / 0.1$$

Per share valuation: $1,400 million / 80 million = $17.50

Since this dividend uplift is still covered by after-tax profits it shouldn't be problematic, provided that Blur has adequate funding for future reinvestment post-takeover.

3. A Risk Assessment

The predator company has certainly done its research. There is an ideal "domino effect" that should minimise risk. Gallagher's earnings valuation exceeds its goodwill valuation, which is higher than the asset revaluation. As we discovered in Chapter Eleven, the assets are an important benchmark in any risk assessment since they can be sold-off piecemeal if the acquisition proves to be uneconomic. The risk associated with takeover can be measured by:

The purchase value of the tangible assets relative to the profitability valuation (asset backing) termed *cover*.

(28) Cover = Net asset valuation /Profitability valuation = \$1,050 million / \$1,400 million

= <u>0.75</u>

Or alternatively, the reciprocal of cover, using the *valuation ratio*

(29) Valuation ratio = Profitability valuation / Net asset valuation = 1.33

The tangible net asset value provides substantial cover (asset backing) for the company as a profitable going concern. Likewise, its profit earning capacity exceeds the asset valuation, which confirms the existence of goodwill, evidenced by the valuation ratio.

4. Conclusions

Blur plc should make an initial bid of around \$13.20 for Gallagher's shares based upon a *minimum* net tangible asset value. A *fairer* price might be \$17.00, reflecting an allowance for goodwill, dividend policy and the earning power of the assets capitalised at a reasonable rate of return, as evidenced by appropriate P/E ratios. In order to ensure success, particularly in the event of a competitive bid (when price might rise further) a *maximum* offer of \$17.50 would seem realistic.

<u>Finally</u>, whilst Blur's original analysis excluded actual cash flow data, as a parting shot consider the following information.

If surplus assets with an immediate realisable value of $150 million had also been identified, over and above the net operating assets of $1,050 million, you may care to verify that the previous going concern values and share prices would have to be uplifted as follows:

Valuation	Net assets	Goodwill	Profitability	Dividends
Total Value	$1,200 million	$1,475 million	$1,550 million	$1,350 million
Per share	$15.00	$18.44	$19.37	$16.87

What this also reaffirms is that the sale of excess or idle assets (which provides a once-only benefit) can only enter into the calculation after annually recurring operating profits or dividends have been capitalised. And needless to say, if realisation is delayed, the eventual proceeds from the sale would have to be discounted back to a present value at an appropriate rate of return, in order to bring it in line with the main valuation date.

Summary and Conclusions

Given the normative wealth maximisation objective that underpins financial theory, we began our study by observing that in an efficient capital market:

> The prime determinant of any company's long-run performance and wealth is the amount it can first earn and subsequently retain for reinvestment or distribute to the providers of capital.

However, if we apply these criteria to corporate equity valuation relating to market listings or takeover targets, there is a methodological conflict between a tangible asset figure revealed in the balance sheet (even based on current costs) and the market price of shares derived from a capitalisation of earning, dividends, or cash flows, using stock market data. The former ignores so many *intangible* and *external* factors, i.e. goodwill, brands, the quality of management and workforce, government policy, changing social, economic and political conditions at home and abroad, speculation and rumour. The latter methods are *entity* based, more inclusive and forward looking.

Irrespective of the valuation method, without perfect information, market participants wishing to invest in companies seeking a stock exchange listing or prey to takeover should also be aware of the dubious managerial motives that often underpin them. Each motive may be *rationalised* but highly *subjective*. Not necessarily based on long-term corporate profitability but managerial short-termism or satisficing behaviour, leading to a catastrophic breakdown of the agency principle and a fall in share price.

Suffice it to say that in an ideal world with a free flow of information, a present value (PV) analysis based upon a risk-adjusted estimation of all projected cash flows, discounted at the company's opportunity cost of capital, is the most sophisticated technique for valuing a company as a going concern. Relax this assumption and at a practical level, the valuation of market placements and takeovers can only be confirmed using publicly available information, financial reports and stock market data.

Selected References

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