10 Acquisition Pricing and Accounting Data

Introduction

Let us assume that a company has completed an objective analysis of its strategic capabilities based on shareholder welfare outlined in Figure 10.1. It has also identified a potential acquisition as the most viable means of achieving its goals. The question now arises as to the most appropriate method of valuation and from where the data should be sourced.

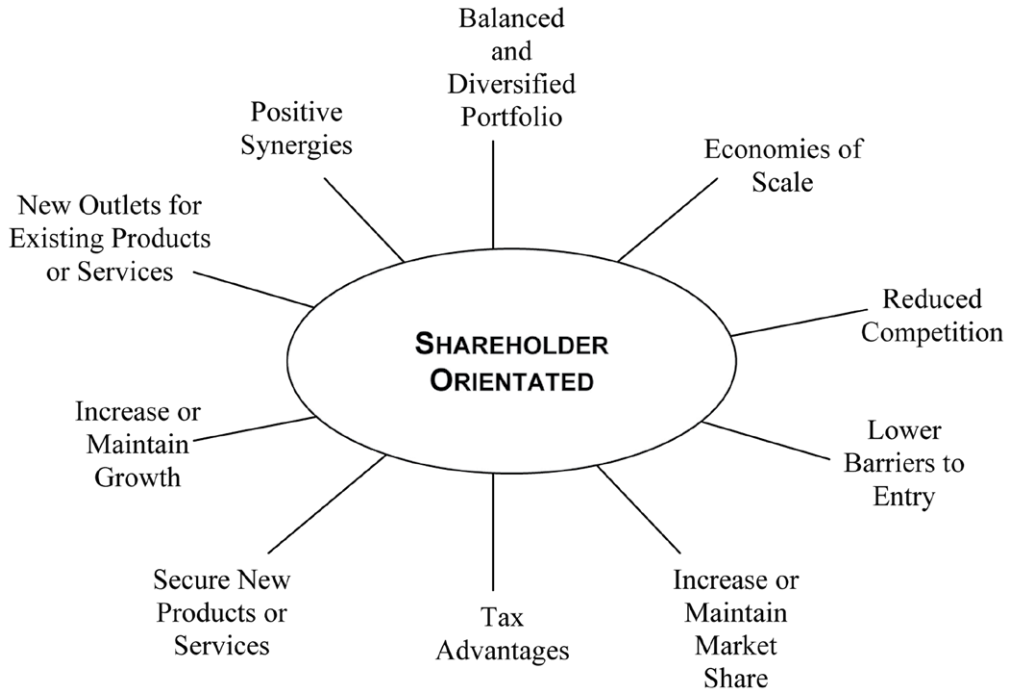

Figure 10.1: Objective Managerial Motives for Acquisition or Takeover

The various going concern valuations available to management (some more sophisticated than others) can be summarised as follows:

1) A net asset valuation incorporating goodwill
2) Income expectations:

(i) a profitability valuation using P/E ratios
(ii) a dividend valuation based upon dividend policy
(iii) a cash flow valuation based on DCF techniques

As we shall discover, no one method is necessarily correct. Rather, they should be used when appropriate to provide a "range" of values for the purposes of negotiation.

To determine a takeover valuation, management must pay careful attention to the past history and present background of the target company. Financial details should be prepared in respect of its latest asset position at the valuation date disclosed by the latest published accounts, together with a review of trading and profit and loss results over a period of years. Equally, the firm's recent stock market performance (yield, cover and the P/E) must be scrutinised, if only to ensure that dividend expectations can be satisfied post-takeover. The worst case scenario is that the target's shares are infrequently traded. There is a history of losses, or erratic profits. Distributions too, may be extremely variable or non-existent. So, there is no reliable basis for deriving a bid price based on market data.

And this is where an asset valuation kicks in.

10.1 Takeover Valuation: The Case for Net Assets

The problem of an *asset* valuation is its evidence of *earning* power. An acquisition at the market value of assets, let alone their book value based on historical cost accounting (HCA) techniques, may be interpreted as a "bargain buy". But as a *going concern* the firm may be worth more "dead than alive". For companies with a stock exchange listing (price) that produces a low market capitalisation of equity relative to the book value of net assets (*i.e.* low *valuation ratio*) the takeover may appear attractive, particularly for venture capitalists if the shares have been *neglected* by the market. But if an acquisition is not part of a carefully conceived corporate plan, reflecting factors other than earnings (for example *asset stripping*) the predator may inherit a negligible return on investment that is not dissimilar to takeovers premised upon the *subjective* managerial goals of growth, prestige and security outlined in the previous Chapter. The merger may also elicit rising expectations on the part of existing shareholders, as well as potential investors. But if these are not fulfilled after the takeover, confidence can evaporate rapidly and equity prices will tumble.

However, we cannot dismiss an asset valuation altogether. Reference to a company's assets is justifiable, if only as a "benchmark" in relation to its current market capitalisation of equity, since their earning power must have a profound effect on share price.

Activity 1
As a basis for takeover, your accounting skills are employed to determine a "going concern" valuation using a record of the latest asset position disclosed by the published financial accounts of a target company. What adjustments to the data do you envisage making?

10.2 Valuing the Assets

Let us assume the worst. The balance sheet is based on HCA convention with few notes or qualifications. A professional analyst would advise the following adjustments.

(a) Fixed Tangible Assets

Whether property prices are rising or not, it is always wise to have land and buildings revalued, irrespective of any professional valuation revealed by the accounts. Items such as plant and machinery, motor vehicles, fixtures and fittings that are shown at their net book value, rather than current cost, may require uplift. Depreciation rates employed during the period of review must also be questioned as evidence of the relationship between net book values and current values. These rates may be quite arbitrary and not produce either a value in use (net replacement cost) for operating assets, or value in exchange (realisable value) if assets are surplus to requirements.

(b) Investments

Listed shares and securities should be valued at their mid-market price for the year but unlisted shares must be the subject of a secondary valuation using methods similar to those used in the main valuation.

It is also important to distinguish between investments that are necessary for the earnings capacity of the business (e.g. trade investments and investments in subsidiaries) which are long-term holdings and those investments that are really "spare cash" items. Although earning interest, the latter should be regarded as "surplus" assets.

(c) Current Assets

If inventory and debtor turnover ratios are rapid, their balance sheet values may be taken without extensive revision. However, some adjustment to current cost may become apparent when the trading results are reviewed, relating to HCA methods of stock valuation and the provision for bad debts.

(d) Intangible Assets

The value of the business beyond "tangible" balance sheet items must also be taken into account by the predator. The value given to "goodwill" will be discussed separately. Suffice it to say that whatever *adds value* by "trade or reputation" must enter into the asset calculation.

If items such as R and D, patents or brand names have either significant usable or saleable values, an independent expert valuation may be necessary and the amount added to the tangible assets.

(e) A Going Concern Value

After appropriate adjustments to balance sheet items it is finally necessary to arrange the assets into the following three groups and then add them together to arrive at a going concern value:

1) *Tangible assets* directly employed in the business that comprise:

a) Net fixed assets, i.e. fixed operating assets at net replacement cost, excluding fixed assets and investments not employed in the business for their earning power, *minus* long-term liabilities.
b) Net current assets, i.e. current assets at their market value, less surplus investments, *minus* current liabilities.

2) *Tangible assets* and financial investments not directly employed in the business, whether fixed or current. These must be included in the final value of the target company at their realisable value because their acquisition and subsequent sale will produce income that is independent of the company's earnings from its trading operations. Excess, idle or "surplus" assets may aid cash flow in the future, either for new investment, working capital or distribution.

3) *Intangible assets*, represented by the value given to the business over and above the sum of the tangible assets, plus other investments.

10.3 How to Value Goodwill

To summarise our position so far:

A going-concern valuation based on a company's net assets may be defined as its net tangible assets (including excess or idle assets) plus intangible assets incorporating goodwill.

Whilst the derivation of the tangible component is not too problematical, the figure for goodwill has concerned analysts for many years, not least because its "real" value is so uncertain and easily destroyed. Ultimately, the price paid for goodwill may be a compromise between buyer and seller, or even ignored altogether. Moreover, the methods for evaluating goodwill are not particularly inspiring, even those standardised by the accounting profession. They are usually a variation of the right-hand term in the following net asset equation (continuing our numbering from Part Two).

(23) $V = A + [(P - rA) / m]$ Subject to $m > r$

Where:

V	=	going concern value of the business
A	=	value of net tangible assets
P	=	expected profits per annum
r	=	normal rate of return
$P - rA$	=	superprofit
m	=	capitalisation rate of surperprofit
$(P - rA) / m$	=	value of goodwill

Superprofit is the profit attributable to goodwill. It is the difference between the total expected profit (P) post-takeover and what economists term "normal" profit, defined as the average return on the net assets (rA) in perpetuity for the industry in question.

The inequality (m>r) reflects the intangible nature of superprofit, relative to normal profit. The higher capitalisation rate for m relates to that proportion of anticipated profit attributable to goodwill. It reflects the increased risk associated with its fragility because goodwill can easily evaporate through inept corporate management or a loss of identity after an acquisition.

The value term for goodwill can also be rewritten from a conventional accounting perspective in terms of its useful life.

(24) $V = A + [(P - rA) / (1/m)]$ Subject to $m > r$

Where:

$(1 /m)$	=	a *number of years purchase* of superprofit

the rationale being that the shorter the term (i.e. the higher the capitalisation rate) the less permanent (more risky) the goodwill.

Activity 2

To illustrate the application of Equations (23) and (24) consider Oasis plc, a target company with tangible assets of £100 million and expected profits of £19 million per annum.

Using assumed values of your choice for m and r (subject to the proviso that m > r) calculate goodwill and going concern values for Oasis.

a) If a reasonable return on capital is 10 percent, then normal economic profit would be £10 million and the superprofit £9 million. Assuming the latter is capitalised at 20 percent, equivalent to a five years purchase of goodwill, we can define:

	£ million
Tangible assets	100
Goodwill (9 / 0.2 or 9 x 5)	45
Going concern value	145

b) If a lower return on the intangible assets is expected because of less risk (say 15 percent) the goodwill would be more valuable (i.e. more permanent) lasting in excess of six years. Thus, the going concern value would be higher:

	£ million
Tangible assets	100
Goodwill (9 / 0.15 or 9 x 6.66)	60
Going concern value	160

c) We can also introduce the time value of money into our calculations. Since the purchase of a number of years superprofits is similar to a *fixed term* annuity, its value can be derived using present value (PV) analysis. Assuming a five year purchase, i.e. a discount rate of 20 percent.

	£ million
Tangible assets	100
Goodwill (PV of £9 million annuity for five years, 9 x 3.7907)	34,117
Going concern value	134,117

Proponents of a going concern valuation incorporating a separate goodwill calculation argue that the method recognises that tangible assets can be sold separately and unlike goodwill are reasonably permanent. However, this may not be true. A piecemeal asset valuation is more appropriate in the event of "asset stripping" and a firm's liquidation, rather than its takeover as a going concern. Moreover, the method cuts across the concept of valuing a business as an *entity* in favour of its component parts. A further practical criticism is that two appropriate rates of return (m and r) have to be assumed. One capitalisation rate may be arbitrary enough. Two may defeat the object of the whole exercise and widen the margin of error.

Despite these defects, the goodwill methodology may produce a valuation that is mutually agreeable to the buyer and seller. Returning to our example, the fact is that Oasis is very profitable and may be more valuable than its total assets of £100 million. This suggests a compromise solution to the valuation of goodwill, which is equivalent to capitalising a perpetual annuity but avoids a separate superprofit calculation.

Assuming that a rate of return of 10 percent is expected from investment in the company, which earns £19 million per annum, it follows that:

	£ million
Going concern value (£19m / 0.1)	190
Tangible assets	100
Goodwill	90

If the goodwill is deemed to be fragile, a lower figure may then be placed upon Oasis. For example, a simple approach could be to use a *mean* value. Thus, we have:

		£ million	£ million
Tangible assets			100
Goodwill:	Profits capitalised at 10%		190
	Less tangible assets	100	
Mean value of:		90	45
Going concern value			145

Needless to say, even these methods do not necessarily give an intrinsic valuation for the business but rather suggest a figure for the purposes of negotiation between the predator and its target. Besides, as we shall discover in Chapter Eleven we can dispense with a goodwill computation altogether.

Review Activity

There is more to financial analysis than the interpretation of historical data contained in company accounts. Accountants, auditors, the tax authorities and even management may defend such information by proclaiming that the price paid for assets and the income they generate are *accountable* facts. In this sense, accounting statements are *objective*. They are composed of "real" figures, which purport to represent a "true and fair" view. Whether such data has utility for investors, however, is questionable.

Suppose Osbourne plc, with a turnover of €25 million and profits of €5 million, records the following figures in its latest balance sheet for which you have additional information (in parenthesis).

	€000s	
Land	20,000	(Bought 5 years ago)
Buildings	80,000	(60,000 spent 5 years ago, the balance representing the cost of subsequent additions at various dates)
Plant	40,000	(Various equipment bought on average 2 years ago)
Stock	5,000	(Many different items, bought on average 3 months ago)
Debtors	4,000	(All expected to be good and to repay on average 3 months hence)
Cash	2,000	(Held for 2 months)
	151,000	

For the purpose of a takeover valuation, evaluate this data.

Summary and Conclusions

Most data published by companies in financial accounts throughout the world is *subjective*. Invariably, the figures are *biased* toward GAAP concepts and conventions that comprise a regulatory framework. Even factual *historical* costs that fail to reflect *current* economic reality are dependent on forecasts. For example, net book values and by definition profits depend upon estimates of the useful lives of assets, appropriate methods of depreciation and residual values.

From the table above, at least four significant points emerge:

1. Each item in the list is *factual* (a record of transactions, which have actually taken place). Every one represents actual money, or money paid and receivable. Except to the extent that there might been fraud or error (for example, equipment might have been bought and charged against current revenue, thus reducing profit and the asset figure below total cost) the list is a factual statement of assets owned and prices paid.

2) However, the total of €151 million has no real meaning. It is a summation of euro's at different values (now, five years ago, three months hence, and so on) that equals the nominal value of authorised and issued share capital plus the historical cost of reserves, loan stocks and other liabilities. It says nothing about market value and has about as much validity as saying that four apples and three pears equal seven fruit.
3) Even if the figures were adjusted for inflation (an average price change) the list of assets provides no indication of their specific worth. The land might be in a development area and saleable for €50 million. The specific cost of replacing the buildings and equipment in their present form might be €250 million. Moreover, the assets might have a high or low current market value compared with a year ago. As a consequence, a significant disparity may exist between the nominal and market value of equity plus reserves, as well as debt. Yet none of this is revealed by the accounts.
4) Similarly, but to opposite effect, the €5 million profit is an *accrual-based* subtraction of various historical costs from current revenue which does not correspond to the net inflow of cash (to the extent that goods and services have been bought and sold on credit and the figure also includes depreciation which is a *non-cash* expense).

In the long run, a company's wealth is the amount it can first earn and subsequently distribute. However, if we adopt this criterion of value as a basis for takeover, there is a conflict between a tangible asset figure, net of all liabilities (even based on current cost) and either a profitability or a dividend valuation that reflect the market price of equity based on discounted revenue theory. The former ignores intangible items that incorporate goodwill and brand names. The latter are forward looking and embrace the whole structure of the firm based upon present value (PV) analyses of projected cash flows, relative to a company's desired rate of return (which may bear no relation to the return on capital employed derived from the accounts).