Book value per share

By Michael Kemp

What is it?

Last September the directors of US company Berkshire Hathaway issued a press release announcing an on-market buy back of its own shares. The price was not specified. Rather the company retained the discretion to pay up to a 10% premium to book value. The company's CEO is the world's most successful investor, Warren Buffett. Since he used book value to define the buyback price a closer look at this metric is warranted.

Book value is taken from the Balance Sheet – more recently referred to as the Statement of Financial Position. ***It is calculated by subtracting total liabilities from total assets***. It is also referred to as net assets or shareholders equity.

Book value can also be expressed on a per share basis. This is calculated by dividing the book value of the company by the total number of shares on issue. This usually differs from the market price.

What is it telling you?

In theory book value should indicate what shareholders would have received had the company been wound up on the date the accounts were constructed. For this to hold true the Statement of Financial Position should accurately reflect the value of the company's assets. However this is rarely the case. The principal reasons are:

- Plant and equipment are recorded at their purchase price less an allowance for depreciation. Inflation and technological advances often render this a poor measure of current value. Book value typically undervalues the replacement cost of plant and equipment for a going concern and overvalues the sale price in the event of liquidation.
- Assets are depreciated at rates set by accounting standards. These rates usually differ from those established by economic reality.
- Real estate is carried at historical cost. Over time this can fall well short of its market value. The significant write downs undertaken by Real Estate Investment Trusts (REITs) in the wake of The Sub Prime Crisis and the GFC illustrate the potential for significant overvaluations to occur as well.
- The value of intangible assets such as goodwill is often misrepresented in the accounts. Goodwill can be internally generated through expenditure on advertising, research and development and years of good customer service. Alternatively it can be acquired when one company buys another. Accounting standards require that the goodwill is treated differently under each circumstance. Internally generated goodwill is not recorded. However purchased goodwill is recorded on the acquirer's books. The goodwill price is the amount by which the acquisition price exceeds the book value of the acquired company. Consider Coca-Cola (US) which possesses one of the most valuable brand names in the world. Accounting standards require that Coca-Cola doesn't recognize this internally generated goodwill in its books. But

if Coca-Cola was acquired the acquirer would record the goodwill as an asset – which in this case would be in the order of $100 billion.

- For many companies, particularly those in service industries, human capital – the quality, skill and knowledge of the workforce – is of significant value. This is not reflected on the balance sheet.

Relating book value per share to market price

A favoured tool of value investors is the P/B ratio. It relates the market price of a stock to its book value. A low P/B ratio is commonly taken to indicate value whilst a high P/B ratio is taken to indicate a growth stock. This interpretation is simplistic and deeper analysis is recommended. The following formula is particularly useful for doing this.

P/B = (ROE-g)/(r-g)

Where:
ROE = Return on Equity (book value)
g = annual growth in earnings
r = required rate of return (Cost of Equity)

This shows us that the three underlying drivers of the P/B ratio are the anticipated return on shareholders' equity, the required rate of return and the anticipated earnings growth. Note the use of the word "anticipated" in relation to the ROE and earnings growth. The market always values stocks in anticipation. In the absence of a crystal ball market participants are heavily influenced by current circumstances in deriving future estimates. So companies which are currently achieving high earnings growth and a high ROE tend to trade on a high P/B ratio. The investor/analyst needs to judge whether these will be maintained, because if they aren't, the share price is likely to fall.

What a low P/B ratio is telling us?

The P/B ratio is widely used in stock selection. US Fund Manager and author, James O'Shaughnessy found that over the long-term, the market rewards stocks with low P/B ratios and punishes those with high ones. Whilst this might hold true for a diversified portfolio of high or low P/B stocks the discerning analyst/investor will probe more deeply when selecting individual stocks. There are exceptions to any rule and it is important to realise there are a number of reasons why a stock could have a low P/B ratio:

- Return on Equity is low.
- Growth prospects are low.
- The company is in financial difficulty.
- The market believes the book value is overstated in the accounts.
- The share price offers good value.

Factors driving a sustained return on equity

Since the maintenance of a high ROE justifies a high P/B ratio consideration should be given to the factors that drive ROE. It is important to state that it is the exception rather than the rule for a company to maintain a high ROE. Dechow, Hutton and Sloan (Journal of Accounting and Economics -

1999) undertook a study covering a large sample of company data from 1976 to 1995. They found that on average companies with initially high ROE's experienced a decay rate of 38 per cent per year in the margin between their ROE and their cost of equity. Assuming a cost of equity of 10% a company with an initial ROE of 40% would see this fall to less than 29% in the first year and to 21% in the second. This means there is a strong tendency for the ROE to move over time towards the cost of equity. Reference to the above formula shows this would see the share price fall towards its book value.

Investors are often encouraged to select companies with a high ROE but it is insufficient to select stocks on this basis alone. There must be justification that the high ROE will persist. It is useful to reflect on the words of Ben Graham:

There must be plausible grounds for believing that this average or this trend is a dependable guide to the future.

The 38 per cent decay rate quoted by Dechow et al is an average and clearly it varies from company to company. To assist in selecting those companies capable of maintaining a high ROE look for factors which bestow an enduring competitive advantage - such as strong market leadership, consumer brand loyalty, lower operating costs or the possession of advantageous licensing agreements. Where these don't exist the barriers are low for competitors to enter that business space. Competitors will continue to be attracted as long as the anticipated ROE exceeds their required rate of return. This will result in falling revenues, reduced margins and reduced ROE.

This should not be taken as an argument against investing in companies with high ROE's. On the contrary these are the very companies that should be sought out. However ***it is those which are characterised by enduring ROE and offered at either a cheap or fair price which will generate wealth***. Companies without these qualities have the potential to destroy wealth.

Summary

- Book value (owner's equity) is calculated by subtracting total liabilities from total assets.
- The true value of a company's assets is often different from that recorded in the Statement of Financial Position.
- The experienced analyst will make adjustments to reduce these variations.
- The P/B ratio relates the market price to the book value.
- The P/B ratio is impacted by market sentiment, the anticipated ROE, anticipated earnings growth and the investor's required rate of return.
- A low P/B is a good screen in the search for value but it should not be relied upon as the sole metric of stock selection.
- Look for companies with low P/B and high and enduring ROE. If the ROE is low, you should have good grounds to believe management can turn this situation around.

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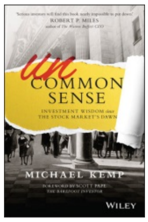

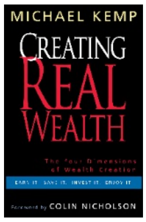

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Michael Kemp is the chief analyst for the Barefoot Blueprint and author of "Uncommon Sense". Published under the Wiley label "Uncommon Sense" delivers a deeply considered and logical approach to the otherwise complex world of investing.