Intangibles: not seen but must be heard

Accounting-based value metrics have become very popular but are finding it increasingly hard to measure value, says Chris Higson, and things are not going to get any easier

A notable feature of the past decade was the growth of value-based management. Companies adopting this discipline use "value metrics" to assess the performance of their business units and as a basis for managers' pay. A value metric is an accounting measure of return on capital that is compared with the cost of capital to signal the creation and destruction of value.

Some companies use traditional measures such as return on equity for this, but most favour proprietary metrics promoted by consultants, such as EVA and CFROI. (Principles are discussed on page 4.) Many investors have adopted the same metrics to screen and rank companies when selecting stocks, and this article discusses the use of metrics by investors.

The performance of an investment is judged in two ways. The internal rate of return is the yield of the expected cash flows on the invested capital. Value is created when the internal rate of return is greater than the cost of capital. Equivalently, net present value measures the amount of value created as the difference between the present value of future cash flows and the invested capital.

The use of accounting return on capital to measure economic returns, and of the price-to-book ratio as a proxy for net present value, depends crucially on the quality of the accounting data. The prevailing view, encouraged by some consulting firms, is that accounting is not up to the job, indeed that its standards are down-right foolish in many cases, but that these can be fixed. So implementation of value metrics usually involves an energetic, and costly, reworking of accounting conventions.

As stock prices became apparently disconnected from fundamental value in recent years, some commentators concluded that there must be a new financial paradigm in which economic fundamentals no longer matter for value. Of course, the bottom line is unchanged - in rational markets a company must still generate economic value to survive and be valued.

Yet there are reasons to believe that a company's financial performance will look different in the future and that best practices in equity analysis will need different tools. Some changes in the economic landscape radically alter the profile of business profitability and business risk. Investors need to understand these changes and to adopt mental models and ways of working in response.

Data integrity

In a properly conducted investment appraisal, all of the assets and claims used and created by an investment project are accounted for, and all the cash flows are identified. To give the same data integrity when calculating value metrics, income must be comprehensive and the balance sheet needs to give a complete list of assets and claims, measured at their opportunity cost. This is a tall order. Though it is conventional to make adjustments to the accounting when calculating value metrics, the adjustments that outsiders such as investors are able to make, using published accounting data, typically fall short.

The prime focus of the income statement is to describe the profit the company makes from its operations. For example, part of the return that a company delivers to its investors may be in the form of unrealised holding gains on assets such as property. These may or may not be recognised. But even when they are, they will rarely be passed through the income statement. Earnings will not be comprehensive if balance sheet changes such as gains and losses on foreign exchange are taken direct to the profit and loss reserve in the balance sheet rather than being passed through earnings. Investors do not usually adjust for these items.

Balance sheets usually do not carry intangible assets. Accounting practice requires the costs of intangible assets such as reputation, human capital, intellectual property and research to be charged as incurred. Acquired, rather than built, intellectual property assets are sometimes carried in the balance sheet, though these are never subsequently revalued. Investors now commonly capitalise research expenditures, but no other elements of intangibles expenditure, and these assets are not usually revalued.

Companies that grow by takeover may make very large investments in goodwill, which is the difference between the cost of an acquired company and the balance sheet assets acquired. Internationally, goodwill is amortised over widely varying periods. Hence accounting returns look very different between companies that grow organically and those that grow by acquisition, and also between acquirers in different countries. It is now common practice to add back written-off goodwill into capital employed when calculating value metrics, but this is rarely revalued.

There will be unrecorded assets and liabilities when the company has written contracts to keep current assets "off balance sheet", for example by factoring the sales ledger or using consigned inventory. Some adjustments by analysts do enhance the completeness of the balance sheet, the most common being the capitalisation of operating leases. But devices such as factoring are much harder for the outside analyst to observe and there is usually no attempt to adjust for these.

The main divergence from current value is for tangible fixed assets. Although the balance sheet is usually complete in tangible fixed assets, these are by default carried at their historic costs, which, particularly for long-lived assets such as land and buildings, may bear little relation to...
current values. Internationally, revaluation of fixed assets is either not permitted, as in the US, or has unfavourable tax consequences. In the UK revaluations are allowed, but they are found predominantly in property-rich sectors such as hotels and drinks, are occasional and are partial with not all assets necessarily being revalued.

**Future visions**

The internet is significantly increasing the transparency of offline and online markets by reducing the buyer’s search costs. One vision of the future is that failing search costs will dramatically intensify competition. Gary Hamel and Jeff Sampier put it thus: “Imagine a world in which you put your weekly grocery shopping out to bid ... Customer ignorance – about prices and relative product performance – has been a profit centre for many companies. But consumers are about to get much, much better informed – and the consequences will be awe-inspiring.” They continue: “Let’s be clear: in frictionless capitalism nobody makes any money!”

So, on this “competitive wasteland” view, substantial excess returns will be implausible in most markets. The key to the delivery of superior economic value in the new world will be achieving competitively superior rates of growth, while ensuring that return on capital remains (albeit only slightly) above the cost of capital.

The world of intangibles

At the same time, there is a widespread view that the reason for soaring corporate price-to-book ratios in recent years, aside from possible overvaluation by stock markets, is the increasing importance of intangible assets. Intangibles are resources such as intellectual property and knowledge assets, brands, alliances, human and organisational capital. Conservative, accounting rules mean that such investment is written off as it is incurred. As a result the “book” in price-to-book is understated. But what is more interesting is the impact of intangibles on “price”.

Intangibles are increasingly seen as holding the key to value creation. Their potential in enabling companies to earn and sustain a return that is significantly above the cost of capital comes from their uniqueness and scalability. Most tangible assets, and all financial assets, are commodities in that there are other assets in competitive supply that can provide the same service. Intangibles tend to be unique and, unlike tangibles or financial assets, the use of an intangible at one place and time does not preclude its use elsewhere; intangibles are scalable for relatively low costs. Once the investment in knowledge and protected, the marginal cost of producing the goods is small.

The so-called “network effect” is simply an extreme case of this: it describes a world where not only can you “scale”, but where scale brings additional rewards because each customer values the product more as more customers use it. The returns to scale are exponential rather than linear. A direct implication of the scalability of intangibles is that the winner takes all. With scalability the product with a small advantage in performance can scoop the market. Indeed, if there are potential network effects, beliefs about who will win the battle, rather than objective functionality, may be enough to tip the market.

**Shifting terrain**

The economic landscape is undergoing fundamental change, triggered in large part by economic deregulation in the final decades of the past century and the transforming power of information technology. In the face of these forces, companies are reconfiguring in ways that will have a radical effect on risk and on return on capital.

In the new economic order sketched by writers such as John Hagel and Marc Singer, companies are moving away from growth-restricting vertical integration in favour of specialisation along resource lines. They see companies reengineering and reconfiguring into three types: product development, infrastructure and logistics; and customer-facing.

Each of these business types has a different tangible/intangible asset profile. Whereas an infrastructure business may be capital-intensive in a conventional way, the main asset for product development is likely to be intellectual property, and for the customer-facing business, brand equity.

Moreover, the span of resource control is increasingly extends beyond conventional ownership to include extended supply and networks of complementary businesses.

Academic Baruch Lev provides the example of Ford. He argues that the potential for economies of scale in manufacturing is largely exhausted and that excellence in manufacturing has been widely mimicked. So manufacturing production has become commoditised. Increasingly, a company such as Ford must look to innovation and to developing brand equity to build competitive advantage. As a result, Ford sees little use in owning

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**Value metrics**

In some guises, a value metric measures accounting return on capital. This becomes clear when we relate measures such as EVA to traditional measures of return on capital such as return on operating assets and return on equity.

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\text{Return on operating assets} = \frac{\text{Operating profit} - \text{Operating assets} \times \text{WACC}}{\text{Earnings} - \text{Shareholders' funds}}
\]

The income that a company delivers to shareholders has been subject to corporate tax, and the investors' required return is set in terms of after-tax income. Since earnings are after-tax, return on equity can be benchmarked against the cost of capital. However, an “enterprise” or “entity-level” measure of return on capital is benchmarked against the weighted average cost of capital (WACC), which is the weighted average of the costs of the loan and equity capital that make up capital employed. By definition, profit and thus return on operating assets are measured pre-tax. Net operating profit after tax (NOPAT) resolves this problem by deducting the tax charge from operating profit, adjusted for the tax effects of interest paid and received. If T is the corporate tax rate:

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\text{NOPAT} = \text{Operating profit} - (\text{Tax} \times \text{Net interest paid} \times T)
\]

The resulting measure of after-tax operating return, commonly known as return on invested capital (ROIC), is:

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\text{NOPAT} / \text{Operating assets}
\]

Although the statutory tax rate is 35%, the average tax rate is not 35%, and 32% is not 35% of 100. The NOPAT calculation reasonably assumes that interest paid (received) is deducted (taxed) at the marginal, statutory, rate and that the tax breaks that reduce the effective tax rate relate to operating profit.

In this example, if WACC was 8% we would conclude that the after-tax operating return of 13.6% reflected superior performance. The difference between return and the cost of capital is often called spread. In the example, spread was +5.6%. The same data can be presented in a different way. If we make a charge against NOPAT for the cost of using the capital employed in operating assets during the year, the surplus is economically economic profit:

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\text{Economic profit} = \text{NOPAT} - \text{Operating assets} \times \text{WACC}
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Economic profit is also known as Economic Value Added (EVA), although the term “EVA” was coined by the consulting firm Stern Stewart. Their version of EVA also incorporates a number of accounting adjustments, designed to correct perceived short-comings of accounting in simple terms, when we ask if a company is earning a return greater than the cost of capital, we are asking whether:

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\text{NOPAT} / \text{Operating assets} > \text{WACC}
\]

Just as exploitation of intangible assets offers a way to differentiate, it will also make the world more risky. The uniqueness and scalability of intangibles creates a winner-take-all environment, which brings corresponding risk. Increasingly we see companies making large bets on uncertain outcomes. An unsuccessful investment in an intangible, unlike some unsuccessful tangible assets, is successful if it is hard to police. These risks are likely to be “unsystematic” – they will not affect the cost of capital. But they have profound implications for equity analysis.