

A capital idea

DAVID ALLEN LOOKS AT THE FACTORS WHICH NEED TO BE CONSIDERED WHEN DETERMINING AN APPROPRIATE CAPITAL STRUCTURE

When it comes to maximising the net present value to shareholders which can be obtained from a given net present value of the entity, there are a number of interrelated factors to consider.

There are so many variables, especially from one time frame to another, that it would be quite vain to hope for a precise answer which stood for all time. The sensible approach is to construct a model which culminates in the value of the company to its shareholders. An assumption of maintaining the current ratio of borrowings to equity would be where most people would start, but then the idea would be to test a few variations on the theme, so as to identify what appears to be the best – and then be prepared to revisit the question as and when conditions demand.

In the order that they would most likely be entered into the model, the key components are as follows. The base data would, of course, be the projected cash generation of the enterprise. As defined in last month's article, this represents the forecast excess of receipts from customers over payments to suppliers and employees. It needs to be separated on the basis of the rules of taxation, as opposed to accounting standards, into its two components:

- Profit, before depreciation minus capital allowances;
- Expansion, the increase in net current assets plus the excess of capital expenditure over capital allowances.

Alongside that data, there needs to be an acknowledgement of the implicit margin of error – or errors; the expansion component is usually less uncertain than the profits. The importance stems from the fact that the risk created by uncertainty is borne, essentially, by the shareholders and the tax authorities, as opposed to the lenders. The more uncertain the forecast cash flows, the lower the gearing – the proportion of value attributable to lenders – one would expect to find.

In order to be able to 'aim off' for the uncertainty involved, it is necessary to quantify the risk aversion of the decision makers. Faced with a forecast value of between £1m plus or minus £400,000, a totally risk averse team – as those in the public are taught to be – would call it £600,000, confident that they would not be punished for delivering less than was promised. A moderately risk averse board of a private company, on the other hand, might have a policy of using the lower quartile, in this case calling the value £800,000.

One of the most contentious issues in finance theory these days is the argument that there is a straightforward relationship between risk and reward, i.e. the more risk you are prepared to take, the higher the return you will earn. However, if that were universally valid, nobody would be risk averse! This is especially relevant in the context of recent stock market performance, where some people are explaining high prices on the basis of lower risk. Everybody knows that equities provide the best return, so go out and buy them – and help drive the price even higher. But, if there is less risk, is it reasonable to expect a high return on these high prices?

At this point, let us return to the example introduced earlier and, ignoring taxation, consider the impact of borrowing, say, £300,000 from a bank. The value attributable to the shareholders would now be £700,000 plus or minus £400,000. Going to the lower quartile would mean calling it £500,000. Together with the borrowings, the total entity value would

therefore still be £800,000. This is the basis of the academic argument that, in a perfect world, changes in capital structure have no effect on the value of a company to its shareholders. In that perfect world, not only would there be no taxation, but also no differences between the shareholders and lenders as regards risk aversion and the required rate of return.

Arguably, taxation is the most important influence in the sense that it is the distortions it brings about which cause so much work for treasurers as regards determining the best capital structure. One distortion arises from the fact that a company's corporation tax liability is a function of its realised profit – albeit on a modified basis, notably in respect of capital expenditure, as noted above – not its cash flows. The more profit that is retained to fund growth, the greater the proportion of cash flows, and hence net present value, that is attributable to the tax authorities.

The other is that interest payable on borrowings is an allowable deduction in arriving at taxable profits, whereas dividends are not. Up to a point, therefore, increasing the proportion of borrowings in a company's capital structure can – provided that the return on investment exceeds the cost of borrowing, of course – enhance the value of the company to its shareholders.

Assume for simplicity that banks' and shareholders' required rates of return are the same: 10 per cent per annum, but that the former is allowed as a deduction from profits to be taxed at 30 per cent; the after tax cost is only 7 per cent per annum. Were the company entirely equity financed, £100,000 per annum of cash flow in perpetuity would have a present value of £1m.

Borrowing, say, £300,000 from the bank would reduce the future cash flow to the shareholders to £79,000 per annum, with a present value of £790,000. But they could also have a one-off dividend of £300,000, bringing the total to £1.09m. This demonstrates another point: you need to consider both performance and potential before reaching a conclusion.

So why not derive all funding from banks, leaving equity shareholders with the prospect of getting something for nothing? This brings us to those other two factors which are missing in the academic's perfect world – different risk aversions and required returns. Once you have taken account of uncertainty by decrementing projected cash flows, there is much less difference between the required rates of return than is popularly perceived. The big difference is in risk aversion.

The banks, after all, are in the business of lending other people's money, and cannot afford to take any risks with it. The sort of interest they charge on, say, overdrafts or invoice discounting is as close to the risk free rate as is reasonable at the retail level. Ask them to provide risk capital, however, and they would decrement a given forecast by significantly more than do the directors on behalf of the shareholders.

As the proportion of funding which is provided by banks increases, the more expensive it appears to become in interest rate terms, because part is actually a provision against the possibility of not getting all the principal back. There comes a point at which the incremental cost of borrowing is more than can be offset by the benefits of the interest being tax deductible, and that tells you the optimum gearing. ■

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