About Topic Gateways

Topic Gateways are intended as a refresher or introduction to topics of interest to CIMA members. They include a basic definition, a brief overview and a fuller explanation of practical application. Finally they signpost some further resources for detailed understanding and research.

Topic Gateways are available electronically to CIMA members only in the CPD Centre on the CIMA website, along with a number of electronic resources.

About the Technical Information Service

CIMA supports its members and students with its Technical Information Service (TIS) for their work and CPD needs.

Our information specialists and accounting specialists work closely together to identify or create authoritative resources to help members resolve their work related information needs. Additionally, our accounting specialists can help CIMA members and students with the interpretation of guidance on financial reporting, financial management and performance management, as defined in the CIMA Official Terminology 2005 edition.

CIMA members and students should sign into My CIMA to access these services and resources.

Chartered Institute of Management Accountants
26 Chapter Street
London SW1P 4NP
United Kingdom
T. +44 (0)20 8849 2259
F. +44 (0)20 8849 2468
E. tis@cimaglobal.com
www.cimaglobal.com
Definition

Shareholder value is defined as:

‘Total return to the shareholders in terms of both dividends and share price growth.’

*CIMA’s Official Terminology, 2005*

A shareholder value metric is a measure of the amount of shareholder value, either as an absolute amount or in comparison with a threshold opportunity cost.

Context

In the current syllabus, CIMA students will learn and may be examined on this topic in Paper P6, Management Accounting Business Strategy, Section 8.4, Value-based Management Approaches.

Overview

Investors invariably invest in business enterprises to increase their personal wealth, sometimes in the short-term but usually over the long-term. How does this increase in wealth occur? The simple answer is through dividend payments and capital growth, that is, the excess of disposal proceeds over purchase cost. By definition, this can only be measured properly once the invested shares are sold. A measure of shareholder value during the period of ownership is needed.

In addition, the simple answer above does not address the question as to how the investment has fared when compared to alternative uses of the funds invested with a similar risk profile.

In response to these issues, a number of metrics have been developed which all aim to measure shareholder value. As well as being used to assist with buying, selling and holding decisions by investors, shareholder value metrics are also used within enterprises to both pre-qualify investment opportunities and to assess performance by management.
This topic gateway explains and comments on the usefulness of the following shareholder value metrics:

- Shareholder Value Analysis (SVA)
- Economic Profit and Economic Value Added (EVA™)
- Cash Flow Return on Investment (CFROI)
- Total Shareholder Return (TSR)
- Real Options.

**In practice**

**Shareholder Value Analysis (SVA)**

The SVA approach was developed by Rappaport (1998). It is calculated by:

1. Discounting the expected future operating free cash flows at an appropriate cost of capital.
2. Adding the value of marketable securities and other investments and subtracting the value of debt.

*CIMA’s Official Terminology* defines free cash flow as ‘cash flow from operations after deducting interest, tax, preference dividends and ongoing capital expenditure, but excluding capital expenditure associated with strategic acquisitions and/or disposals and ordinary share dividends.’

The metric requires that free cash flows are estimated for all future years. In practice, what often happens is that free cash flows are forecast on a year-by-year basis over a short-term planning period, after which cash flows are assumed to reach a stable sustainable level.

These cash flows are then discounted using the enterprise’s weighted average cost of capital (WACC), which is ‘the average cost of the company’s finance (including equity, debentures and bank loans) weighted according to the proportion each element bears to the total pool of capital’, according to *CIMA’s Official Terminology*.

SVA can be used to evaluate both alternative strategic decisions and an enterprise as a whole. It also lends itself well to sensitivity analysis and the identification of critical variables that affect shareholder value. The most significant problem with SVA is the prediction needed in relation to the variables required in the analysis.
Economic Profit and Economic Value Added (EVA™)

Economic profit (EP) is a concept which can be traced back to the work of economist Alfred Marshall in the 19th century. EP is the surplus earned by an enterprise in a period after deducting all expenses, including the investors’ capital in the business. It is sometimes referred to as the residual income approach. Proponents of EP argue that, although net profit does include a charge for the use of debt finance (interest payable), it is deficient in that it does not include a charge for equity finance.

A typical measure of EP is: operating profit before interest but after tax less a charge for the use of capital. The tax charge reported according to the Generally Accepted Accounting Principles (GAAP) needs to be adjusted to exclude the effect of both interest chargeable and interest receivable. The charge for the use of capital is usually invested capital x WACC.

In its simplest form, EP is a single period measure based on historical results. Yet it can be used to measure and evaluate performance and value businesses. It is fairly simple to introduce and only requires two adjustments to the reported operating profits – the adjustment to the tax charge and the deduction of a charge for the cost of capital.

The consulting firm Stern Stewart developed EVA™ as a refinement to the basic EP concept. Stern Stewart argues that GAAP tends to distort EP due to its non-cash, accrual based accounting basis which tends to hide the true cash performance of an enterprise. Over 150 adjustments to operating profits and capital are recommended by the Stern Stewart model to avoid these distorting factors. In practice, however, only a few key adjustments are actually made. The most common adjustments are to add back cumulative goodwill which has been written off and to add the present value of capitalised operating leases to the capital base.
Cash Flow Return on Investment (CFROI)

This rate of return measure, which is adjusted for the effect of inflation, compares the cash generated by an enterprise and the cash invested in it. The CFROI equates to the rate at which future annual cash flows (that are anticipated to occur over the average life on an enterprise’s assets) could be discounted back to the current cash value of the enterprise’s net operating assets.

The calculation of CFROI is a three stage process:

1. Convert accounting profit to real operating cash flow for the period by adjusting for non-cash and non-operating items.
2. Adjust balance sheet values for the effects of inflation by returning assets to their full historical cost adjusted for general price inflation. Add any off-balance sheet assets, such as operating lease assets, to give ‘gross assets at current cost’.
3. Determine the rate of return (IRR) at which the present value of the projected real operating cash flows, plus the terminal value of non-depreciating assets (land and working capital), would equate to the gross asset value calculated in step two. This time series is set by the average life of the enterprise’s assets.

A calculated CFROI in excess of an enterprise’s cost of capital indicates the creation of shareholder value. Usually CFROI is calculated each year and trends are analysed over a medium-term period.

One of the key advantages of CFROI as a measure of performance is that it is neither distorted by the effect of inflation or depreciation. However, the calculations required are often time-consuming and costly to apply. In addition, the assumptions about the average life of assets can be very subjective.

Total Shareholder Return (TSR)

The total return to shareholders over a given time period equates to the percentage capital gain (or loss) received over the period, assuming all dividends distributed by the enterprise are immediately reinvested in the enterprise’s shares. This is a straightforward basis for the measurement of investment performance, and in the case of publicly traded shares is based upon readily available public information. However, it assumes that the enterprise could have re-invested dividends at the same rate of return as existing capital. An alternative view is to assume that dividends are re-invested at the enterprise’s equity cost of capital.
This approach is said to represent the closest measure of the true economic performance of a business by including the effect of changes in value, as well as actual performance in a given period.

In the UK, the Directors’ Remuneration Report Regulations 2002 require that a chart showing five year annual TSR performance against a relevant index or peer group average is published as part of the executive remuneration section in the annual report of listed entities.

**Real options**

This approach applies the theory of financial options pricing to real investment decisions and hence to corporate values. In doing so, value is attributed to being strategically well placed to take advantage of future uncertain developments. For example, an energy company may have untapped reserves of oil that, in present economic conditions, cannot be extracted profitably.

A discounted cash flow (DCF) model would show negative net cash flows for a project to use these reserves, and therefore a nil value. However, there is always the possibility that oil prices would rise to such an extent that extraction became economically viable. Real option pricing theory would argue that there is value in the option to extract.

The actual pricing of such options is based upon financial option models such as the Black-Scholes formula which uses the following six variables:

- current share price
- exercise price
- uncertainty
- time to expiry
- cash flow foregone during the period during which the option is held
- risk-free interest rate.

One of the main differences between the real option analysis and DCF is the treatment of uncertainty. Traditionally, the DCF model would attribute a higher discount rate to more risky or uncertain projects, and therefore lower net present values. In contrast, the real option approach recognises that future gains and losses need not necessarily all be treated equally.
An enterprise might be able to exploit future investment opportunities that are profitable but avoid those that are not. As long as an enterprise is not committed to a particular course of action, then it holds a real option to either exploit a given opportunity or to do nothing, depending upon future developments. In these circumstances, as uncertainty increases, so does value.

As well as the underlying complexity of the model, the data requirements are extensive. One of the differentiating elements of this approach is the valuation of uncertainty. However as uncertainty increases, its valuation becomes more problematic. Nevertheless, the real option approach does provide a formal analytical framework with which to assess stock market valuations and, consequently, shareholder value changes.

**Practical illustration**

CIMA is a founder member of the Report Leadership Group which researched ways in which reporting could better serve both preparers and users of financial reports. The Group, which includes PricewaterhouseCoopers and Radley Yeldar, concluded that corporate reporting should be more accessible and informative. It selected best practice examples of simple, practical and effective ways to improve narrative and financial reporting.

One of the areas covered in the Group’s first report, *Tomorrow’s reporting today*, was the reporting of Shareholder Value. The report takes the form of an annual report for a fictitious company, Generico, and contains a section called ‘Our delivery of value’. This provides a practical illustration of one way in which organisations could present shareholder value information to its members.
References


Further information

CIMA members can obtain articles on this topic from the Business Source Corporate database, which can be found in the CIMA Professional Development section of the CIMA website. [www.cimaglobal.com/mycima](http://www.cimaglobal.com/mycima) [Accessed 21 September 2009]

Articles


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Thompson, Jr, L. *Shareholder value and your sustainability goals*. Compliance Week, June 2009, Volume 6, Issue 65, pp 60-61

**Books**


CIMA Publications


Websites

Value-Based Management.net 
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