

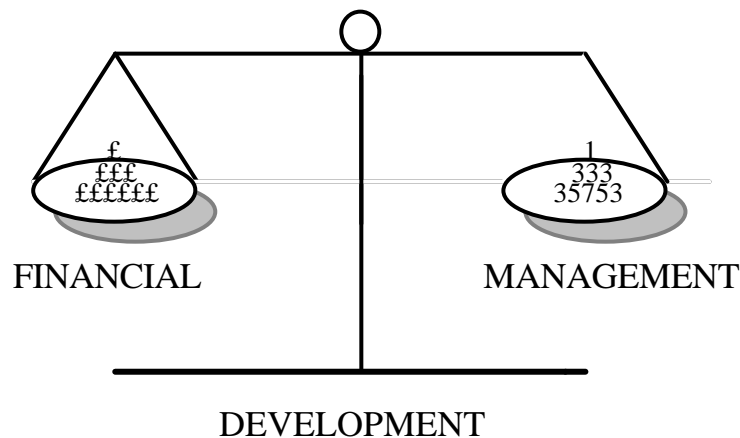
FINANCIAL MANAGEMENT DEVELOPMENT

Decision Making

Capital Expenditure

NO 338

TERMINAL VALUES



ONE OF A SERIES OF GUIDES FOR
FINANCIAL MANAGEMENT DEVELOPMENT
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This is one of a series of documents produced by David A Palmer as a guide for managers on specific financial topics to assist informed discussion. Readers should take appropriate advice before acting upon any of the issues raised.

TERMINAL VALUES

WHY USE TERMINAL VALUES?

In real life, business rarely ceases at a convenient point. Most activities and business opportunities continue for many years. However, most systems of investment appraisal involve calculations of Net Present Values and/or Internal Rates of Return over clearly defined periods - normally 5, 7, or 10 years. This causes difficulties with comparisons between projects to maintain infrastructure and those which are establishing future growth. There is therefore a need to include some valuation of the worth of an established project for incorporation in the model used for calculation. To leave out this value will ignore a vital benefit to the business and may result in artificially prudent business cases for growth projects.

WHAT ARE TERMINAL VALUES?

The terminal value of any project is its worth to the business expressed as a value arising in the final year of an investment appraisal. This may be positive i.e. a continuing cash benefit to the business, or negative if there is a projected cash outflow e.g. closure or rectification costs.

For an acquisition of a discrete entity it is possible to estimate the potential future sales value. For other projects it may be necessary to envisage a value for the future net cashflow from continuation of the project activity. In many organisations the terminal value is arrived at by projecting the normalised cashflows from the final year of the project out into infinity i.e. valuing the cash stream as an annuity.

HOW ARE THEY CALCULATED?

An annuity of £1 per year for ever can be shown to be worth the equivalent of $£1 \div$ the discount rate at today's prices. At a discount rate of 10% the value is $0.909 + 0.826 + 0.751 + \dots + 0.000$, which (ignoring rounding) equals £10. Mathematicians may wish to prove this by adding it up, the rest of the world can take it on trust.

For an organisation using 18% as its discount rate an annuity of £1 is equivalent to $1 \div 0.18 = £5.55$. Thus, the cost of a future stream of £1 p.a. for ever would be £5.55.

It is usual therefore to calculate the normalised (i.e. removing exceptional items) cashflows for the final year of a project and treat this as an annuity arising in the final year of the project evaluation.

DIFFICULTIES AND DANGERS

The main difficulties centre around predictions for the future. For most appraisals estimating cashflows in 10 years time is open to some degree of error. To project that forward to infinity is by definition subject to uncertainty. Using an annuity approach assumes:

1. No growth
2. No unusual costs or incomes
3. No termination costs
4. Infinite life.

In most organisations the Net Present Value is calculated both with and without the Terminal Value and limits are placed on the values involved. In some cases the Terminal Value is truncated e.g. for only the next five years in order to avoid overstating the benefit.

In any event the fact that the final terminal value is itself subject to discounting is likely to reduce the impact of serious errors.

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David is an experienced financial professional who has devoted his skills to management training in practical understanding and utilisation of financial information. A Graduate, Chartered Accountant, and Associate of the Institute of Taxation, he is also a Member of the Chartered Institute of Personnel and Development.

He has worked as a Financial Controller and Company Secretary in the Finance Industry and as a Director of Finance and Administration in the Computer Services industry. Since 1990 he has conducted management development programmes for over thirty major organisations including Blue Circle, BP, CSC Computer Sciences, Conoco, Ernst & Young, Lloyds Bowmaker, The Post Office, Rothmans and Zeneca. International training experience includes work in Denmark, Kenya and the Czech Republic for Unilever, in Dubai for Al Atheer, in Holland and the U.S. for Avecia and Zeneca and in Bahrain and Saudi Arabia for Cable & Wireless.

He specialises in programmes in financial management for both tactical and strategic decision making. A key output from the training is demonstrable use of the knowledge and skills acquired to enhance corporate profitability. In addition he has run courses in acquisition evaluation (The Economist, Blue Circle and Hays Chemicals) and in post-acquisition management (Unilever). He has also developed material for delivery by in house personnel (Royal Mail, Lloyds Bowmaker and Conoco) and computer based training packages (The Post Office, Unilever and BP).

He is a prolific writer of case studies, role plays and course material, he has also published articles on the financial justification of training, financial evaluation of IT investment proposals, the use of Activity Based Costing and Customer Profitability statements, commercial considerations for consultants and the need for taxation awareness training for general managers.

He is married with one grown up daughter and his outside interests include being The Treasurer of the Hospice of St. Francis (Berkhamsted), and a member of the Catholic Alpha Training Team (Promoting the Alpha course on Basic Christianity). He was a Governor of Luton University for nine years and a school Governor for four years.

This series of papers is designed to help managers by providing a basic understanding of key financial concepts to assist them in their work. It is provided at no cost since this knowledge is a Gift from God and thus to be shared (Matthew 10:8).