A Guide to SME Business Finance

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Mining Technology
Services Action Agenda
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Introduction

This document is designed to provide small and medium enterprises (SMEs) with an introduction to debt and equity funding, along with an outline of the information typically required in order to obtain funds.

The Guide was originally produced to meet a need identified by the Mining Technology Services Action Agenda (MTSAA), which, during industry consultations carried out as part of the strategic phase of the MTSAA, determined that access to capital and finance was a key factor in the future success and sustainability of mining technology companies, a sector dominated by SMEs. Although the Guide was produced as a result of the MTSAA's findings, it can equally be used by SMEs in other sectors. It is an introduction and general guide only, as there will be differences between SME needs, and there will also be differences in the products and the requirements of the different financial institutions, which will change as new financial products are developed.

Access to finance can be critical to business growth and success, particularly for start-up companies. It can increase the speed at which a company grows, fund additional product development, or simply provide enough capital on hand to run the business until the break-even point is reached. Larger companies with an established performance record and assets find it much easier to obtain finance than small start-up companies, who may have unproven management and few tangible assets.

While this Guide has a greater emphasis on debt finance, those firms seeking equity finance will find that they will be required to provide similar information.

- Debt finance is essentially a loan, which has to be repaid with interest, and the borrower bears most of the risk if the business fails;
- Equity finance involves an investor putting funds into a business with the expectation of future earnings. They therefore share the risk, and in return gain some ownership, and possibly some control, of the business.

SMEs appear to have a preference for debt as opposed to equity finance for a number of reasons, one of which is that debt finance can have tax advantages. Equity funds are more difficult and often initially more expensive to obtain, and generally are not available quickly. In large fund management companies, the decision to invest can take more than two years, and in general they are not interested in firms requiring only a small level of funds, partly because of the large size of the investment pool they control, and partly because the amount of work (and therefore expense) required to assess and monitor a small investment is disproportionately high compared with the scale of the investment.

The Australian Bureau of Statistics 1995 Business Longitudinal Study found that the largest proportion of SME liabilities was in the form of loans from banks and financial institutions (27%), followed by trade and other creditors (25%). Smaller firms tend to rely much more on bank sources of finance, such as loans and overdrafts, and are less exposed to trade and other creditors and non-loan liabilities.

Although banks are the main providers of finance to small businesses, there are other sources, including:

- equity finance from venture capitalists and business angels, particularly available to high growth technology-based companies;
- matching services (increasingly being promoted on the internet); and
- alternative equity markets, such as those which have been set up at Newcastle and Bendigo.

This Guide also provides an introduction to equity finance, and some of the issues surrounding this kind of investment. The various options for determining the most appropriate kind of finance should be carefully examined preferably with professional help.

The Australian Prudential Regulation Authority (APRA) regulates all "approved deposit-taking institutions" in Australia, including the Australian and foreign owned banks operating in Australia, as well as building societies, credit unions, insurance companies, superannuation funds and friendly societies. A list of these can be found on the APRA website at <www.apra.gov.au>.

In addition, as of 11 March 2002, all providers of financial services (for example, those advising on, or dealing in, financial products) either must have, or work for an organisation which has, an Australian Financial Services license from the Australian Securities and Investments Commission (ASIC).

ASIC has a website at <www.asic.gov.au> which has databases where an individual can run free safety checks to ensure that the people being dealt with are properly licensed to advise on or sell financial products.

The authors wish to thank staff at the Australia & New Zealand Banking Group Limited and the Commonwealth Bank of Australia for their comments on the original draft of this Guide.

1. OPTIONS FOR FINANCING BUSINESS GROWTH

There are many ways to raise start-up capital and finance for the ongoing operations of a business, in addition to the owners investing in the business using their own funds. What is needed at the start is a realistic estimate of the amount of capital required and, in the case of debt finance, an estimate of how any borrowings might be repaid, and over what time frame.

Simple finance options include:

- personal savings and assets;
- personal loans – banks will often lend up to around $20,000 without security;
- life assurance policies – it may be possible to get a loan of up to 95 per cent of a policy's cash value;
- credit cards – although interest rates are high, it is a quick way to get several thousand dollars;
- using suppliers – try to build up credit facilities with suppliers as quickly as possible; and
- friends and relatives – but it's a good idea to have legal documents drawn up.

A list of financial and related resources is at **Appendix A**.

1.1 Debt Financing

Smaller firms often have greater difficulty in accessing debt finance than larger firms. From the lender's point of view, common difficulties associated with lending to SMEs include:

- low levels of equity;
- undercapitalisation and lack of financial strength;
- insufficient reinvestment of profits;
- poor financial management and reporting systems;
- no business plan or financial projections;
- nature of security and the way it is valued on the balance sheet;
- management quality and depth, and insufficient management reporting systems;
- poor understanding of financial data, especially ageing debtor/creditor/stock cycle;
- diversion of funds into non-core activities; and
- diversion of funds into lifestyle activities.

In presenting a funding proposal to a potential lender, it is essential that the above areas are addressed (see Chapter 4 – Business Planning).

1.1.1 Bank/Financial Institution Finance

Banks can offer some of the lowest interest rates available, but the trade-off for this is that they tend to be conservative in their lending policies.

Most banks (and credit unions and finance companies) offer small personal loans up to around $20,000, which can generally be obtained without having to offer security. The advantage of these loans is that approvals are quick and there are no extra stipulations for funding – it is a straight loan.

The disadvantage is that interest rates can be significantly higher than for other loans.

To obtain larger amounts and to get the best interest rates, it helps if the business has been in operation some time and has some assets which can be used as security. If a business person owns their own home, this can be used as security, but if the business fails, it may be put in jeopardy. Some finance providers, such as venture capitalists, prefer a clear distinction between personal and business assets.

Nonetheless, small businesses often have very lean equity capital structures, and therefore may have limited options for debt finance if the business is unable or unwilling to use these sorts of assets as security. In practice, a very large proportion of most bank business loan portfolios are secured by residential property – not only to provide security for the lender, but also to demonstrate the borrower's commitment to the venture.

With debt finance, the borrower largely bears the risk, in that if the venture fails due to circumstances beyond their control, such as a market slump, the loan still has to be paid out. Some aspects of the risk can be reduced through insurance to cover injury or death which would result in payments being missed.

The consequences of defaulting on a loan can be severe. A business loan may be secured by an asset which is owned by the business, and/or by assets owned by the business owner, and, if there are any, the business partners (called the principals). The principals may also be required to offer guarantees to repay the loan should the business not be successful.

If the business defaults under its loan obligations, the lending bank is able to rank as a "secured creditor" and therefore has a higher priority over any "unsecured creditors" to assets. This means that the bank could seek repayment of the debt directly through the forced sale of the security. If the sale does not fully recover the loan funds and any outstanding interest, the bank could then look to the principals to recover any shortfall through its guarantee security. However, a forced sale of a security is the last resort for a lender, and in managing what is termed an "impaired asset" the lender would usually explore other repayment options which may be available.

To secure the best business loan, the business will have to prove it can meet loan repayments, and the principals will be required to provide a business plan (banks will not lend money to a venture they judge not to be viable), and demonstrate an ability to manage and succeed in business.

The price of accessing debt finance (i.e. interest rate or other charges) will be influenced by the:

- risk grading – the overall assessment of the probability of the loan being repaid;
- size of the debt transaction;
- nature and quality of the security being offered;
- value of the firm's connection with the bank; and
- quality of management, particularly financial management.

Other typical debt financing products include:

- overdrafts;
- hire purchase;

- leasing;
- invoice discounting (a line of credit is provided which can be drawn on as required up to the limit of sales invoices accepted by the financial institution. Interest is paid on the daily balance, resulting in lower costs than many fixed finance arrangements);
- inventory loans (term loans which use the business inventory as security); and
- mortgage loans.

Although not strictly debt financing, another mechanism through which a business can secure finance is through "factoring". Factoring has a number of variations and may also be referred to as Current Asset Financing, Invoice Discounting, Cash flow Financing, Debtor Financing and Debtor Lending. With factoring, a financial institution effectively buys credit-worthy accounts receivable and funds the business with immediate cash, around 80% of the invoice value. This means that the business can use its debtors to finance new orders. When the accounts are paid, the balance is forwarded, less a fee – often of around 2% to 3% of the value of the invoices, or higher, depending on the risk of non-payment.

1.1.2 Finance Companies

Finance companies (often owned by a bank or other financial institution such as an insurance company) provide loans and also offer products such as hire purchase and leasing. They will consider more risky ventures than a bank would be likely to consider, and they charge higher interest rates than banks to compensate for the risk.

Finance companies will be interested in the applicant's assets, management track record (a major factor) and the potential of the new business to generate further business for the finance company.

1.1.3 Government Programs

Grants and concessional loans may be available as part of certain specific business enhancement programs offered by State and Australian Commonwealth Governments. An additional advantage of this kind of funding is that sometimes there is the added element of guidance from the government body concerned, or its program delivery agents. In addition, if a firm has obtained funds from a government body, it is often viewed positively by other finance providers should there be a need for additional funds.

Loan funds obtained from government, as with that from other sources, need to be repaid within a certain time period. In some cases the government loan may specify sharing in the profits from the venture.

This kind of financing is highly competitive, with limited funds available.

Government loans require business and marketing plans, as well as completion of the various forms provided for applications. The process can take some time, for example, the decision processes for an AusIndustry application for a business loan can take anywhere from six weeks to four months, depending on the volume of submissions received.

The main Australian Government programs which provide access to finance or other assistance to SMEs are at **Appendix B.**

1.1.4 International Trade Finance

Finance can be obtained from banks, government agencies, and other financial services institutions for businesses involved in international trade. This is usually in the form of overdrafts and term loans.

- **Importers –** Banks offer finance to small businesses to cover contingencies such as where an overseas supplier requires payment before shipment, or immediately upon delivery.
- **Exporters –** Banks and financial services institutions can provide a range of short or long term trade finance products to fund export transactions.

To compliment the products provided by banks and others, the government-backed Export Finance and Insurance Corporation (EFIC) provides a range of medium to long-term finance and insurance facilities (generally over two years) to assist small to medium-sized businesses export Australian capital goods and services. These include:

- Export Working Capital Guarantees
- Advanced Payment and Performance Bonds
- Documentary Credit Guarantees and Finance
- Medium-Term Payments Insurance

More information can be found on the EFIC website at <www.efic.gov.au>.

1.2 Equity Financing

Equity Finance (owners or investors) is important for maintaining a sustainable capital structure particularly at the early start-up and expansion stages. Without adequate equity (sometimes referred to as "hurt" money – a reference to how much business owners are prepared to get hurt financially if the venture goes bad), there can be problems accessing debt finance.

Investors will expect a return on their investment commensurate with their risk, and they may want some say in the running of the business. Sometimes, raising start-up capital requires dividing the business ownership among investors who contribute capital, but who may or may not participate in the day-to-day operations of the business.

Equity financing does not involve loans and there is no legal obligation to pay back the amount invested. All the investor gets for his/her money is a percentage of the business and the losses, profits, liabilities and assets that are associated with it. Investors can often bring experience and knowledge to the venture and enhance the management capability. This may seem ideal, but the business owner is giving up a portion of the business and with it some control, and therefore will need to negotiate the best possible package for themselves.

1.2.1 Venture Capital

Venture Capital (VC) refers to independently managed and dedicated pools of capital that focus on equity or equity-linked investments in privately held, high-growth companies; and is generally made available through corporations or specialised venture capital funds. Outside the United States, VC is often used as a synonym for private equity.[1]

Venture capitalists may obtain some income from dividends from the companies they invest in, but they obtain most of their earnings from capital gain from their investments. They will often consider more high-risk ventures than banks or finance companies, but to compensate look for superior gains upon exit. The *Australian Venture Capital Journal* (AVCJ) data in August 2000 suggests that the Internal Rates of Return sought by Australian fund managers ranges between 25% and 60%, with a mean of 34%. They are also attempting to maximise the returns for their backers – often institutional investors such as insurance or pension funds.

Venture capitalists usually invest through the purchase of shares in a company, and if the investment is large, this may mean that they possess a majority shareholding. They usually require a seat on the Board of Directors. Venture capitalists may not take part in the day to day running of the company, although provision of management and technical expertise can often be a condition of VC funding. They commonly act as a mentor and a business partner to see that the company grows and succeeds, which is in the best interests of all concerned, including the venture capitalist.

It is also common, and a growing trend, for co-investment by a number of VCs in a particular company. This is because each VC firm usually has particular areas of industry specialisation, and so may bring other VC firms to access their expertise. Other reasons are to spread risk, and to increase the pool of funds available to develop a firm.

Due to the nature of VC investments, finance of this type is suited to only a small number of firms, and VC funds only amount to about 4–5% of the total stock of available commercial finance.[2] When used successfully, VC can provide a very rapid path to growth. Companies such as the Digital Equipment Corporation, Apple, Lotus, Federal Express, Compaq, Sun Microsystems, Intel and Microsoft are examples of companies that used venture capital early in their development.

Venture capitalists will eventually seek to exit the investment, usually in about three to seven years. An early stage investment may take seven to ten years to mature, while a later stage investment may only take a few years. Exit strategies can differ and may include being bought out by the company principals, a public listing, or sales of the VC's shares to a third party. The strategy needs to be negotiated and agreed on at the beginning of the VC investment.

Most VCs have a portfolio of investments aimed at spreading their risks, and although they see many proposals per year, they select only a few, partly due to their rigorous selection criteria and partly because they closely manage and monitor their investments.

The amount of VC investment is commonly in the $1 million to $10 million range, depending on the stage of development of the potential investment company (seed, start-up, early stage expansion, late stage expansion, turnaround/restructure, management buy-out, management buy-in, and institutional buy-out and privatisation). The amount can be a great deal more if required, as additional VC firms can be brought in to increase the capital pool. This is sometimes done where an investment has been successful and requires substantial additional funds for rapid expansion.

[1] Definition from the Australian Venture Capital Association Limited (AVCAL)
[2] Australian Bureau of Statistics (ABS)

Venture capitalists generally look for:

- **Products & Services**

  Ideally the company has a first-rate product or service targeted at fast growing or untapped markets with a defensible strategic position, backed up by your marketing materials, and a marketing plan.

- **Management Team**

  There must be evidence that the company has the quality and depth in the management team to achieve its goals and objectives.

- **Business Plan**

  The venture capitalist must be convinced that the company ownership has the ability to achieve set goals within a given time-frame as delineated in the business plan. The ideal business plan is generally no longer than 10 pages (VCs see hundreds of business plans every year). It must be succinct, straightforward and realistic in outlining what the business is, what markets it addresses, what the intended achievements are, and how they will be met.

- **Corporate Structure**

  Willingness to use modern corporate governance standards, with clear ownership and separation between personal and business assets, must be demonstrated.

- **Workable Investment Structure**

  A satisfactory deal should be in place to produce the anticipated financial returns to investors.

- **An Exit Plan**

  Clear exit routes for the venture capital investment, such as public listing or a third party acquisition of your company, should be delineated.

According to the Australian Venture Capital Association Limited (AVCAL), the investment process begins with the venture capitalist conducting an initial review of the proposal to determine if it fits with the VC's investment criteria. If so, a meeting will be arranged with the entrepreneur/management team to discuss the business plan.

The initial meeting provides an opportunity to conduct initial due diligence on the project. It is important for the management team to demonstrate their understanding of the business and the ability to achieve the strategies outlined in the business plan.

The venture capitalist will look carefully at the team's skills and backgrounds, and study the viability of the market to estimate its potential. The venture capitalist will study the industry carefully to obtain information about competitors, entry barriers, the potential to exploit substantial niches, product life cycles, distribution channels and possible export potential. Independently prepared market forecasts (prepared by industry experts who specialise in estimating the size and growth rates of markets and market segments) are often used.

Assessment involves exhaustive due diligence with reports from accountants and other consultants and disclosure of all relevant business information. Final terms can then be negotiated and an investment proposal submitted to the board of directors. If approved, legal documents are prepared.

A shareholders' agreement is prepared containing the rights and obligations of each party. This could include, for example, veto rights by the investor on remuneration and loans to executives, acquisition or sale of assets, audit, listing of the company, rights of co-sale and warranties relating to the accuracy of information provided.

The investment process can take up to three months, and sometimes longer. The financial needs of the business should be determined as early as possible, in order to allow time to secure the required funding.

1.2.2 Business Angels

The name derives from the 'angels' that funded theatrical productions in the USA. Business Angels should not be confused with philanthropists, as they are interested in substantial returns on their investments.

These can be organisations which specialise in introducing potential investors to business opportunities, but are frequently individual investors. The Angels themselves can be institutions or high-wealth individuals who are looking for growth investment opportunities. Many operate in a similar way to venture capitalists. They invest directly in a small number of unlisted companies rather than indirectly through a venture capital fund, and tend to identify those enterprises through personal networks or other less formal means than VCs.

Angel syndicates or networks enable individual Angels to:

- pool money and thereby invest in larger deals;
- diversify across multiple investments;
- leverage network contacts and investment expertise (such as screening, valuation, and monitoring); and
- add follow-on rounds to existing investments.

In Australia, Angel investors often have an entrepreneurial background, and are often private retirees who invest their expertise and capital into new and emerging businesses in their area of interest, in the form of a management buy-in. They usually make investments of between $250,000 and $4 million, generally in SMEs, using their own funds (unlike venture capitalists who use other people's funds). Some Angels also provide loan finance, either independently or as part of packages from lending institutions.

A survey of 61 Business Angels was reported in the 2001 Global Enterprise Monitor (GEM) study. According to Hindle and Rushworth[3], if the Angel investments recorded in this study are extrapolated to the general population, then this indicates that the size of the Australian Angel market may be larger than that of the formal VC market, as is the case in Canada, the US and the UK.

Investment criteria appear to be similar to those of VC funds (e.g. rate of return, cash flow, capital growth and time to exit). They appear to be biased towards early stage and start-up enterprises, and traditionally are interested in property, finance, manufacturing and business services. Some have an interest in biotechnology and ICT projects. Angel investment can fill the gap between the exhaustion of your own funds for your company and your suitability for VC investment.

Often Angels will find investment opportunities through referrals – from friends, industry colleagues, or other investors. It is much easier to gain this kind of investment if a personal introduction is made

[3] Hindle, K and Rushworth, S. 2001, Yellow Pages, Global Enterprise Monitor Australia 2001, Swinburne University of Technology, Melbourne, and; Industry Policy Branch, ITR, The Australian Financial Market, The Provision of Equity and Debt Finance to Australian Businesses, 2002.

to the Angel concerned. Cold calling and unsolicited mailings are unlikely to be successful. In the event that a business owner is seeking Angel investment, general advice is often available through accountants, lawyers, and the like. Such networks need to be continuously built, since this is often how opportunities are created.

Some Angels now operate out of investment 'shop fronts', or in conjunction with specialist institutions. Banks are now also reaching into less traditional ways of funding, and some are branching out into matching Angel investors with businesses.

Lawyers, generally experienced in these matters, can often provide guidance on the necessary processes. Apart from the likely network of contacts they might have to help find this kind of investment, they will also be useful in putting deals together and help avoid problems that can crop up during negotiations.

1.2.3 Mentors

Mentors do not provide finance directly, but they can assist in organising the company and gathering the information important to improve the chances of obtaining debt or equity finance. There are a number of mentoring service organisations available. Most of the major Banks have links to mentor services, as well as providing their own guides to financial and business planning. Many State Governments also have links to mentoring services, and these can be found on the websites listed in Appendix A.

Mentoring services have been given a boost under the Small Business Enterprise Culture Program (SBECP), delivered by AusIndustry, which provides funding to organisations for projects that deliver skills development and mentoring services to small business owners and managers, including projects supporting women in small business.

Mentoring projects involve the delivery of mentoring services to small business owner/managers. Eligible activities may involve one-to-one support, group mentoring or the use of novel approaches to applying mentoring techniques to assist small business managers. SBECP also supports skills development projects tailored to the needs of women in business. The Program is aimed at organisations that deliver services to small businesses including industry associations, women's professional and business organisations, community organisations, educational institutions including universities, business enterprise centres and TAFEs.

The AusIndustry Commercialising Emerging Technologies (COMET) Program offers two mentoring products (details are at Appendix B).

1.2.4 Business Incubators

Business incubation is an active process of business enterprise development. Incubators assist start-ups to develop, through the provision of hands-on management assistance, access to financing and coordinated exposure to critical business or technical support services. They may also offer participants office space, flexible leases, and access to equipment and resources.

An incubation program's main goal is to produce successful graduates – businesses that are financially viable and freestanding when they leave the incubator, usually in two to three years.

Thirty percent of incubator clients typically graduate each year.

Most incubators that seek to improve commercialisation of ideas and R&D in Australia and overseas appear to operate as 'not-for-profit' organisations. This is partially to ensure that returns from incubator participants are reinvested in the incubator.

While many large ICT corporations provide funding and acceleration services to young firms, most incubator centres in Australia are supported by a mixture of public and private funding and expertise, typically involving State or Australian Commonweatlh governments, companies and research institutions.

Incubators usually impose selection criteria upon prospective members. Some accept a mix of industries, but others concentrate on industry niches.

1.2.5 Corporate Funding

A new source of funding for start-ups is the Corporate sector. Although in its early stages, several large corporations have actively worked with start-ups in one of the most important areas – providing them with the necessary finance and expertise to start.

Finance is generally provided to start-up SMEs in the form of debt funding and deferred payment financing, although some corporate investors have developed equity investment funds, much like those of the venture capitalists. The advantage of securing funding from a large corporation is the additional services they can also provide, such as support from their existing corporate structure and expertise.

The corporation is generally looking for products or technologies it can use to enhance its own product range or technologies. A disadvantage for the SME in wishing to obtain the funding by this mechanism is that the SME's business or product idea must generally fit with what the larger corporation needs for current or future requirements.

The way a corporation is approached for finance, and the information required, is similar to that used in approaching a venture capitalist – they will expect a sound business plan to be presented. The corporation is not providing grant support, it is an investment and a substantial rate of return will be expected. Some corporations also require that the applicant company to have already secured investment capital before they are approached (especially in the dot-com area).

This concept is still fairly new in Australia, and the companies entering this arena often have different kinds of corporate funding on offer. Recent market sector downturns have seen some corporations withdrawing from this activity.

1.2.6 Public Listing

Listing your company on the stock exchange (referred to as an Initial Public Offering or IPO), requires time and resources, but can provide an SME with:

- additional equity capital;
- more shareholders;
- a mechanism for shareholders to trade their shares;
- a higher public profile which can lead to further business;

- a cost effective and efficient way to raise further capital if needed; and
- the opportunity to offer shares as part of an employee incentive scheme.

Listing can be an expensive exercise, and therefore the amount of capital to be raised needs to be substantial in order to be cost effective. In addition to listing fees, there will be the cost of preparing the required documentation, and any other costs associated with professional advice and services.

Following listing, there are continuing listing requirements, including disclosure of information and reporting requirements. Thus consideration needs to be made on whether this is the best way to access capital for growth, and whether it is appropriate and feasible to "list". Although it is mostly companies that list, other bodies such as trusts can also list, providing they meet additional criteria.

Stock exchanges also have links to private capital providers, business services, and facilities for debt securities as well.

The Australian Stock Exchange (ASX) is an amalgamation of the various State stock exchanges, and caters for the listing of all companies. The Bendigo (BSX) and Newcastle (NSX) stock exchanges are focussed on providing finance for SMEs. The BSX and the NSX operate with a special exemption from the Australian Securities and Investment Commission (ASIC) so that smaller companies can list and raise capital at a lower cost. Nonetheless, compliance with their listing rules is essential, and these may appear quite substantial.

The listing rules set out the requirements for becoming listed, ongoing disclosure requirements and important aspects of the relationship between a listed stock exchange company and the investors who hold the securities. The rules play an important role in setting standards for the conduct of companies while listed, and also play an important role in the overall legal and regulatory framework. They are additional and complementary to the obligations of listed companies under statutes, such as Corporations Law, and under Common Law.

When listed, a company enters into a binding contract with the stock exchange under which it agrees to comply with the stock exchange listing rules. This contract is enforceable by the stock exchange, as well as by others under Corporations Law.

Appendix C gives some of the key principles and tests for listing.

2 THE BUSINESS OF FINANCE

Financial institutions are in the business of risk management, and their lending will seek to balance risk and credit quality to ensure profit generation. Each institution's lending policy is highly confidential, as it reflects how they position themselves in the market; however it is likely to be influenced by such economic factors as:

- interest rates;
- exchange rates;
- inflation;
- business cycles;
- Government industry policy; and
- GDP growth rates.

When deciding whether to extend finance, all financial institutions need to find out if a business:

- has the capacity to repay the debt;
- has a repayment track record;
- has the security or collateral support if needed; and
- is likely to provide further business opportunities.

It is in the interest of the business to ensure that it provides as much quality information as possible so that it demonstrates a thorough knowledge of the business and the industry in which it participates. The more confidence that can be built in the lender or equity provider, the greater the chance of the funds being made available.

Industry information along with economic information will highlight factors which will impact on a lenders' risk. Financial institutions test this information against their industry databank, which incorporates their analysis of the industry competitiveness, strengths and weaknesses of each industry sector. They particularly look for worst-case scenarios, and how sensitive the business is to them in regard to its ability to meet its commitments. They also look for the strategies that will mitigate against these risks, or what courses of action may be available to reduce their impact.

2.1 Industry risk information

Well presented industry information which indicates an understanding of industry risk and risk management, reflects favourably on an applicants' business competency, and gives confidence to the lender. All applicants for funding, especially those in industries sensitive to external factors (eg. changes in interest or exchange rates), need to show a good knowledge of the characteristics and trends in their industry. Substantial time and effort is required for the business owner to achieve the best results.

Factors which may impact on an industry include:

- economic factors;
- interest rate sensitivity;
- sensitivity to exchange rate fluctuations;
- competition within the industry;
- industry competitiveness;
- tariff protection;
- industry regulations and pending regulations;
- domestic and environmental risk;
- environmental laws and regulations; and
- the growth stage of the businesses industry.

This information is important as the assessment of credit risk of an individual financial proposal is influenced by these factors and whether the firm is in a new, emerging, developing, mature or declining industry.

Firms other than those in developing and mature industries may be accorded a higher risk premium, particularly start-ups (approximately 60 per cent of new businesses fail within the first three years) and those who have diversified into non-core activities. Typical risk factors to consider are:

- capacity of management to deal with rapid internal and external industry changes;
- industry trends;
- industry returns on investment;
- minimum critical mass capitalisation to sustain growth;
- credit standing of the applicant;
- competitive position of the applicant; and
- default rate of the industry sector.

3 FINANCIAL INFORMATION REQUIREMENTS

A range of financial information and reports on the firm are essential. As a minimum, this includes:

- profit and loss statements, and balance sheets for three years (some institutions require audited statements);
- current year cash flow projections;
- cash flow projections for the term of the debt;
- budget projections for 12 months;
- debtors, creditors and stock lists; and
- a statement of the assets and liabilities of principals.

Additional information is often requested. Developing firms (and others) may be asked to provide:

- a statement of directors' loans and assets;
- a statement on future capital expenditure; and
- personal and company tax returns.

If there is any reliance on working capital assets such as raw materials, stocks, etc., to secure an advance, the lenders may be interested in understanding the full details of any creditors terms of supply, existence of any Retention of Title clauses, and any other factor which might encumber the assets.

3.1 Importance of Cash Flow

Cash flow statements and projections are critical to deciding whether finance is extended or not. One of the most common reasons for company failure is a cash flow crisis.

To demonstrate the sustainability of projected cash flows, lenders will expect an explanation of:

- the nature and probability of risks that may threaten cash flow timing or volume;
- trends and risks inherent in the industry; and
- risk management strategies to cope with a worst-case scenario.

A useful exercise is to undertake a sensitivity analysis of how economic factors might impact on the business. The basic elements include:

- effects of changes in interest rates on operating and net profit;
- exchange rate variation effect on production costs and profit margins;
- business cycle and the operation of the business; and
- cash flow variation in cash flow projections.

3.2 Financial Ratios

There are five main financial ratios (or groups of ratios) commonly used by financial institutions to determine the health and future viability of your business.

- Leverage Ratio
- Coverage Ratio
- Liquidity Ratios
- Efficiency Ratio
- Profitability Ratios

Explanations of these are at **Appendix D**. Familiarity with these ratios is very important, as is the ability to anticipate any questions the potential lender may have on them. Each institution will have its own standards for such indicators, but obviously it is in the interest of any business to have the best possible ratios. However, "dressing up" the figures to make them look better than they are is not recommended. The services of a qualified accountant may be useful in understanding these ratios and preparing the proper figures. Websites of the Certified Practicing Accountants and the Institute of Chartered Accountants are included in Appendix A.

Lenders will also be interested in the firm's earnings retention/disbursement policies and historical trends. That is, they will want to know how much of the cash profit, after meeting all required commitments such as debt amortisation and profit distribution, is retained in the business to support the additional working capital necessary for ongoing growth.

A good financial record will not only increase the likelihood of obtaining finance, but also of obtaining the lowest cost finance.

3.3 Management Skills

Management skills can be demonstrated through evidence of an established track record, the experience and depth of the management, timeliness of financial information, achievement of budget and financial targets, and average or superior industry gross margins.

Lenders will assess management competence and control on:

- timely year-to-date actual and forecast monthly/quarterly management and budget reports;
- timely aged debtors[4], creditors and stock listings;
- regular and timely cash flow statements and forecasts;
- profit and loss statements and balance sheets; and
- costs and revenues tested against competitors and industry standards.

Business skills will also be assessed by:

- Integrity
  - track record
  - mercantile and credit bureau checks

[4] Refers to debts which are outstanding beyond the accepted industry time period for settling accounts.

  - business repayment history
  - personal repayment history
  - communication with bank manager;
- Competence
  - period in business
  - references from suppliers and customers
  - time of service in the industry
  - personal observations;
- Strategic vision
  - strategic plans
  - business plans
  - management control systems;
- Personal assessment
  - personal observations
  - first-hand contact
  - site visits.

A "track record" is a key factor in the credit assessment process, as it influences the price of debt and the acceptance of an application for debt finance. It will determine the:

- type and extent of credit monitoring controls;
- credit covenants required;
- risk grading;
- interest rate;
- frequency of financial and management reports; and
- level of security, collateral or directors guarantees required.

Lenders may assess how dependent the business is on the ongoing management of the key principals. If it is heavily reliant on one senior person, with little or no evidence of a feasible succession plan, the lender may require insurance to cover contingencies in the event that this person becomes unavailable to perform their tasks for whatever reason (this is often termed keyman insurance).

3.4 Risk Premium and the Price of Debt Finance

The grading of risk, the risk premium and the price of debt, are determined by similar factors, but are separate elements in the credit assessment process.

- Repayment capacity is the prime element in the pricing risk.
- A high debt/equity ratio means higher debt price and/or a shorter amortisation period.
  - financial institutions have minimum prudential standards for the debt/equity ratio, and the level of the ratio will be linked to the risk grading.

- A low debt/equity ratio may enable a business owner to negotiate more favourable terms for debt finance.

3.5 Security

Lenders often claim that they do not lend against just security, but the reality is that they are not very comfortable lending without it. Lenders are primarily interested in what is termed the **'First Way Out'**, which is that the loan will be completed normally through sustainable cash flows. Security is the **'Second Way Out'**, a way in which lenders can manage their risk and provide a last resort to recover their loan. It is also seen as an incentive for the borrower to maintain payments and an indication of the borrower's commitment to the venture.

Traditional assets include plant and equipment, inventory, licences and property. All financial institutions discount the value of the assets, although the extent of the discount varies between institutions and on a case-by-case basis. Lenders discount the value of the assets based on the minimum they could expect under 'fire sale' conditions.

Although built into the 'second way out', lenders prefer not to have to realise the security, because even though the lender has discounted the value of the assets, if a business fails, the assets will also be downgraded by the market, such that selling them may not provide the necessary funds to recover the debt.

Most lenders do not have any fixed way of valuing non-traditional assets, such as patents, software programs and intellectual property, and this often causes some difficulties in industries, such as in the ICT sector. These firms may have to provide substantial equity, additional 'bricks and mortar' assets, or director's guarantees, and be subject to more stringent monitoring and control. The cost of finance could also be higher. This has been particularly the case following the dot-com and ICT industry crashes of the early 2000s.

New or emerging high technology industry participants can expect rigorous scrutiny. Export companies can also expect higher risk premiums and/or tougher credit covenants because of the additional risks associated with currency fluctuations and payments.

[4] The former Partnerships for Development program, later called the Fixed Term Development program of the Commonwealth Government produced many examples where relatively small strategic partner firms to major multinationals were encouraged to increase their exports through the partnerships. For example, exports by partner companies to Canon Inc reached $10.7 billion over the period from 1988.

4 BUSINESS PLANNING

The main tool in arranging finance for new ventures is the business plan. It is often thought to be difficult to write, but there are a number of sources of help. Business consultants and accountants can help you with this task, and the AusIndustry program – Commercialising Emerging Technologies (COMET) – assists small businesses to plan and develop a business plan through a business advisor. There are also computer software programs which can be useful guides.

A business plan is a crucial part of the business planning process. It helps identify areas of strength and weakness, highlighting items that might otherwise be overlooked and helping avoid problems before they arise. Good planning is consistently rated as a critical differentiator between high and low performing firms.

Some examples of the information in a business plan include:

- the type of business;
- the type of customers;
- the size of the market for the product or service;
- methods of producing the product or service;
- marketing strategies;
- the level of sales expected;
- how the business will be managed; and
- how the business will be financed.

A completed business plan becomes an operating tool that will help manage the business and guide it to success. The business plan is the chief instrument for communicating ideas to others – business people, bankers and partners. It will explain the company's goals and objectives, outline the products or services on offer, the market situation, strategies to achieve goals, and will include relevant financial information. It helps to:

- identify goals and objectives;
- develop strategies to meet those objectives;
- highlight problems and suggest ways to tackle them;
- define the business structure; and
- obtain finance, if required.

The first step in starting a business and developing the business plan is to make sure that the business idea is viable. This is determined by extensive market research on all aspects of the industry that the firm will be part of.

Many plans are initially created in order to borrow money. They become the finance proposal used when approaching banks or other institutions for a loan and contain the requisite information for evaluating the potential of the business.

The business plan should be based upon pertinent and accurate information, providing a true depiction of the present circumstances and influences impacting on the business as well as incorporating well thought-out and feasible details of goals, objectives and the strategies. A formal system for reviewing the performance of a firm will be necessary when seeking either debt or equity finance.

Finance institutions require that the information they receive be of high quality (this may be tested by comparing the borrowing firms' performance against budgets). The business plan should include:

- An executive summary.
  - a brief and informative overview of the whole plan. Outlines business operations, capabilities, goals and objectives and how to achieve them.
- A description of the core business of the firm.
  - products and services;
  - operations.
- What is the firm's competitive advantage and how is the firm positioned?
  - what is the growth potential?
  - how does it differ from others in the same industry?
  - who are the main competitors and what are the main threats?
  - what is your market?
  - what are the risks and rewards?
  - why your product or service instead of others?
- Information about the business structure. Where a more complex business structure is used, it will be necessary to demonstrate how all aspects of the business will integrate and communicate. Some of the options to structure a business include:
  - Sole Proprietor
    The business does not exist as a legal company separate to the owner, hence it is said to be unincorporated. Legally, a business operating as a sole proprietorship cannot be distinguished from the owner's non-business affairs.
  - Partnership (for two or more people)
    Partnerships are not separate legal entities, therefore are said to be unincorporated. The partners are personally responsible for the debts of the partnership. Creditors can pursue personal assets if business debts cannot be repaid. Records should be kept on how much equity each partner has in the business. Partners should also agree upon how profits should be distributed.
  - Company
    Companies are legal entities (incorporated) established under Corporations Law. The equity of the company is divided into shares, which can be bought and sold by shareholders. Different voting rights are attached to different classes of shares. As a legal entity, a company owns assets, can sue and be sued.

    Two useful websites to help you set up a company are the Australian Securities and Investment Commission (ASIC) at <www.asic.gov.au> and the Business Entry Point at <www.business.gov.au>.

- Market analysis

Market analysis essentially involves taking a careful look at the products and/or services on offer and an analysis of the competition and actual and potential customers. Anticipated market share must be shown, along with an explanation of services to a niche market and/or any unique selling points. It pays to do as much market research as possible. There are two types of research that can be used – primary and secondary.

- The four methods commonly used for primary research are:
  - direct mail;
  - telephone interviews;
  - person-to-person interviews; and
  - focus groups.
- secondary research sources include the Australian Bureau of Statistics, which publishes population density and distribution figures, local councils, business advisory organisations, libraries, trade groups and commercial research companies.

- A SWOT analysis (strengths, weaknesses, opportunities, threats)

A SWOT analysis helps to explain exactly how the business will fit in relation to its competitors. Strengths can include any factor that can help deal with the anticipated market better than competitors. Weaknesses include any internal difficulties which may interfere with the operation of the business. An example might be a key employee, who, if they left, would be very difficult to replace and may endanger the business, or a technical risk with the product. Opportunities include market trends, emerging markets, high growth market segments, etc. Threats include competitors, market trends, any economic factors or new regulations which could impact negatively on your business.

- Risk assessment

Risk assessment and how it will be managed is a key feature that financiers look for in firms seeking finance. It should include economic and industry factors such as:

- Is the industry sensitive to economic changes, such as changes to interest or exchange rates?
- In what way will the business respond to these economic changes?
- What is the worst case scenario for this industry?
- A useful exercise is to undertake a sensitivity analysis of how economic factors might impact on the business. The basic elements are:
  - interest rate changes effect on operating and net profit;
  - exchange rate variation effect on production costs and profit margins;
  - business cycle and the operation of the business; and
  - any likely variation in cash flow projections.

- An action plan

The action plan ties everything together. It is the template showing the timing and completion dates of each aspect of the business strategy, as well as what is hoped to be achieved at the end of each period.

- Financial reports and budgets

  This can be the hardest part of a business plan. An accountant can help. A number of financial reports are required that will show plans for generating income, meeting costs and financial commitments as well as achieving set goals. A record of transactions such as cash payments and sales is another key point financiers look for, as well as the financial controls in place. They also look for the accuracy of business plans when compared with actual results.

- Finance:
  - detail what financing will be required and how will it be used.
- Business model – including:
  - how the company will attain profitability;
  - market size and trends;
  - pricing, revenue predictions;
  - operational costs; and
  - profit margins.
- Management team:
  - expertise and experience;
  - past successes in similar projects;
  - references, skills and expertise (related to the business plan).

Not all these questions may be applicable to every business, but they are an overview of the type of information required by financial institutions, and also in the running of a business on an ongoing basis. Other issues which should be considered include relevant Occupational Health and Safety regulations, and the need for public liability insurance.

Appendix A Finance and Related Resources

1. Debt Finance

Debt finance can be obtained from banks, credit unions and other financial institutions. A comprehensive list of Australian Banks, Foreign-owned Banks operating in Australia, and Credit Unions, and links to their websites, can be found at the website of the Australian Prudential Regulation Authority (APRA) at **<www.apra.gov.au>**.

Several Banks also provide links to equity capital providers such as Business Angels and to Mentor networks.

2. Equity Capital

The **Australian Stock Exchange (ASX)** is responsible for the regulation of listed companies and the trading of securities. The ASX is, along with the Australian Securities and Investments Commission (ASIC), one of the main regulators of Australian corporate activities. Its website is at **<www.asx.com.au/asx/homepage/index.jsp>**, and has a number of educational resources about the equity market.

The **Bendigo Stock Exchange** (BSX) was established to provide an alternative equity market to that provided by the ASX. Aimed at SMEs and start-ups, the stock exchange was modelled on the US NASDAQ exchange. Its website is at **<www.bsx.com.au>**.

The **Newcastle Stock Exchange** (NSX) was also established to provide an alternative equity market to that provided by the ASX, and is also aimed at SMEs and start-ups (also similar to the NASDAQ). Its website is at **<www.newsx.com.au>**.

3. Financial Services Associations

The Association of Superannuation Funds of Australia Ltd (ASFA) **<www.asfa.asn.au>**.

Australian Bankers' Association (ABA) **<www.bankers.asn.au>**.

Australian Business Limited (a range of business services including introductions to business angels) **<www.australianbusiness.com.au>**.

Australian Financial Markets Association (AFMA) **<www.afma.com.au>**.

Australian Venture Capital Association Limited (AVCAL) **<www.avcal.com.au>**.

The Finance and Treasury Association Ltd (FTA) **<www.fta.asn.au>**.

Insurance Council of Australia (ICA) **<www.ica.com.au>**.

International Banks and Securities Association (IBSA) **<www.ibsa.asn.au>**.

The Investment and Financial Services Association Limited (IFSA) **<www.ifsa.com.au>**.

4. Legal Services

Firms will most likely need legal services during their development. A starting point is the law societies in each state, who may be able to provide some guidance. All of the websites listed have a directory of lawyers, and many provide information about the law and its processes.

The Law Society of the Australian Capital Territory **<www.lawsocact.asn.au/content/home2/index.asp>**.

The Law Society of New South Wales **<www.lawsocnsw.asn.au>**.

The Law Society of The Northern Territory Email **lawsocietynt@bigpond.com**

Queensland Law Society Incorporated **<www.qls.com.au>**.

Law Society of South Australia Inc **<www.lssa.asn.au>**.

Law Society of Tasmania **<www.taslawsociety.asn.au>**.

Law Institute of Victoria **<www.liv.asn.au>**.

The Law Society of Western Australia **<www.lawsocietywa.asn.au>**.

5. Accountants

Certified Practicing Accountants (CPA) Australia **<www.cpaaustralia.com.au>**.

Institute of Chartered Accountants in Australia **<www.icaa.org.au>**.

National Institute of Accountants has a website at **<www.nia.com.au/index.asp>**, which may be useful in choosing an accountant to help with business forms, plans and taxation matters.

6. Government Assistance

A listing of Australian and State Government programs to assist the commercialisation of innovations is available on the Department of Industry, Tourism and Resources website **www.industry.gov.au**, by clicking on the 'A–Z' index, clicking 'I' then 'Innovation'. The publication *Commonwealth and State Government Programs Supporting Innovation in Firms: at January 2003* should appear in alphabetical order.

Information on Australian Government programs are also available on the AusIndustry website **<www.ausindustry.gov.au>**.

7. Other Australian Government Information Resources

Australian Bureau of Statistics (ABS) **<www.abs.gov.au>**.

Australian Government Entry Point **<www.fed.gov.au>**.

Australian Competition and Consumer Commission (ACCC) **<www.accc.gov.au>**.

Australian Securities and Investment Commission (ASIC), has information about the regulations involved in setting up (and winding up) companies, and the reporting requirements. It also has information on companies, and alerts on dubious and illegal activities, and a list of banned directors and finance advisors. The website is at **<www.asic.gov.au>**, and has useful links to other financial sites.

Australian Taxation Office (ATO) **<www.ato.gov.au>**.

Business Entry Point **<www.business.gov.au>**.

Australian Government Information Management Office (formerly the National Office for the Information Economy (NOIE)) **<www.agimo.gov.au>**.

8. State and Territory programs' websites:

Australian Capital Territory

Chief Minister's Department **<www.business.act.gov.au>** and also the ACT government entry point **<www.act.gov.au>**.

New South Wales

Department of State and Regional Development **<www.business.nsw.gov.au>**, and also the NSW government entry point **<ww.nsw.gov.au/Business.asp>**.

Northern Territory

Department of Business, Industry & Resource Development **<www.dbird.nt.gov.au>**, and also the NT government entry point **<www.nt.gov.au>**.

Queensland

Department of State Development and Innovation **<www.sd.qld.gov.au>**, the Department of Public Works **<www.build.qld.gov.au>**, and the Queensland government entry point **<www.qld.gov.au>**.

South Australia

Department of Trade & Economic Development **< www.southaustralia.biz/home_page.htm>**, and the SA government entry point, **< www.sa.gov.au >**.

Tasmania

Department of Ecomonic Development **<www.development.tas.gov.au>**, and the Tasmanian government entry point **<www.service.tas.gov.au>**.

Victoria

The Department of Innovation, Industry and Regional Development (IIRD) **<www.iird.vic.gov.au>**.

- Science, Technology and Innovation **<www.innovation.vic.gov.au>**.
- Business in Victoria **<www.business.vic.gov.au>**.
- Multimedia Victoria **<www.mmv.vic.gov.au>**.

Victorian Government Entry Point **<www.vic.gov.au>**.

Western Australia

Department of Industry and Resources **<www.doir.wa.gov.au>**.

Department of the Premier and Cabinet, **<www.dpc.wa.gov.au>**, Office of Science and Innovation **<www.scienceandinnovation.dpc.wa.gov.au>**.

Small Business Development Corporation **<www.sbdc.com.au>**.

Department of Environment **<www.environment.wa.gov.au>**.

Western Australian Office of Energy **<www.energy.wa.gov.au>**.

Western Australian government entry point **<www.onlinewa.com.au/enhanced/>**.

Appendix B Main Australian Government Programs Supporting SMEs

R&D START – Grants and Loans – AusIndustry

To encourage innovation, the Australian Government established the **R&D Start** program, administered by the **Industry Research and Development Board**.

Following the announcement of the new **Commercial Ready** program as part of the $5.3 billion *Backing Australia's Ability – Building our Future through Science and Innovation* package, the Australian Government will be providing more than $1 billion funding out to 30 June 2011.

Commercial Ready builds on the success of the R&D Start program and will commence in October 2004, after a consultation process. Details will be made available on the AusIndustry website at <www.ausindustry.gov.au>.

NOTE: Applications for R&D Start will be accepted until 10 September 2004.

Projects must involve research and development, but can also include related product development and market research. Projects must have commercial potential, and applicants must be able to show that they can fund their own share of project costs. Grants range typically from $50,000 to $5 million, and up to $15 million, depending on the size of the company.

Pooled Development Funds (PDF) – AusIndustry

This program is designed to increase the supply of equity capital for growing Australian SMEs. PDFs are private companies, registered under the PDF Act, that raise capital from investors and use it to take equity in Australian SME companies. In return, PDFs and their shareholders are taxed at a lower rate on income generated from eligible activities.

Commercialising Emerging Technologies (COMET) Program – AusIndustry

COMET is aimed at individuals, early growth stage companies, and spin-off companies from research institutions, and funds a business advisor to help manage their innovation and commercialisation activities. There is a $250 application fee. COMET also has a product, Management Skills Development, which funds training in management skills.

Innovation Investment Fund (IIF) – AusIndustry

The IIF is a Venture Capital program that invests in nine private sector venture capital funds to assist small companies in the early stages of development to commercialise the outcomes of Australia's strong research and development capability.

Building on IT Strengths incubator program (BITS) – Department of Communications, Information Technology and the Arts

The objective of the BITS incubator program is to assist in the development of a dynamic, globally oriented information technology and communications (IT&C) industry sector by funding incubator centres which:

- improve the rate of commercialisation of IT&C ideas and R&D;
- assist IT&C startup firms, and startup firms which use IT&C as a key business driver, reach their full potential and play a significant role in the national innovation system; and
- become viable in the medium term without ongoing support from the BITS incubator program.

Information Technology Online program (ITOL) – Department of Communications, Information Technology and the Arts.

The ITOL program provides catalytic grant support to innovative e-commerce projects that encourage SMEs to gain commercial business benefits from the adoption of online solutions across industry, with the goal of accelerating the national adoption of business-to-business electronic commerce solutions.

Export Market Development Grants (EMDG) – Austrade

The EMDG Scheme provides assistance to small and medium Australian exporters committed to, and capable of, seeking out and developing export business by repaying part of their promotional expenses. Applicants may qualify for up to 50% reimbursement of eligible export marketing expenses above $15,000 per annum to a maximum of eight grants. Up to $200,000 per annum may be reimbursed.

Appendix C Indicative Stock Exchange Listing Requirements

Key Principles

The ASX, and the BSX and NSX, all have their listing rules on their websites (listed in Appendix A). The following information has been taken from the BSX and NSX listing rules to illustrate the type of information required – but it is by no means exhaustive. In general requirements are:

- companies wishing to list on the stock exchange must meet minimum standards in relation to size, quality and operations;
- listed companies must keep investors and the market informed on a timely basis of information that is likely to affect the price at which their securities trade;
- activities of companies must be carried out in accordance with relevant stock exchange listing rules to ensure investors rights are dealt with in an equitable way;
- activities of companies must be carried out in a efficient and certain manner to reduce risk and promote confidence in the functioning of the stock exchange.

Tests for Listing

There are a number of tests which a company must pass in order to be considered for listing. At a minimum, each company must satisfy either a profit test or an assets test.

There are requirements not only on the type of information to be provided, but also its quality. The stock exchange may ask for additional information, and can refuse to list a company if the information is not made available or they consider it to be inadequate.

The stock exchange has absolute discretion in relation to admitting a company for listing. They can admit a company on any conditions they think appropriate, or grant or refuse admission without giving any reason.

Appendix D Key Financial Ratios

The following ratios are some of those commonly used to assess a firm's performance when applying for finance. Each financial institution will have their own standards of acceptability for these ratios, and these standards also vary from industry sector to industry sector. Additional ratios may also be used, depending on the institution and the industry sector in which the firm operates. References to some recent Australian accountancy texts are provided in the Bibliography.

Leverage Ratio

This is a measure of a firm's indebtedness compared to the size of its overall asset base. It is also known as the gearing or debt to equity ratio, and measures how much of the total assets of a business are financed by shareholders and how much by external interests.

$$\text{Debt to Equity Ratio} = \frac{\text{Total Liabilities}}{\text{Total Liabilities + Shareholder's equity}} \times 100$$

A similar ratio is the Debt Ratio, which also indicates the proportion of the firm's assets it has financed with debt.

$$\text{Debt Ratio} = \frac{\text{Total Liabilities}}{\text{Total Assets}} \times 100$$

A firm which is highly leveraged (highly geared) has a high ratio of debt to equity. The higher the ratio, the more strain there will be on the business to repay the debt, and the more cautious financiers will become. This ratio affects:

- risk grading;
- price of the loan;
- length of amortisation period;
- monitoring requirements;
- security and collateral required; and
- requirement for directors guarantees.

Coverage Ratio

This is the number of times interest payments are covered by earnings before interest and tax. The ratio is used to determine the firm's capacity to service debt and to repay the principal, and reflects cash flow sustainability. This ratio is a key one in determining the repayment period (amortisation period).

$$\text{Coverage ratio} = \frac{\text{Profit before Finance Expenses and Tax}}{\text{Finance Expenses}}$$

This ratio is sometimes called the Times Interest Earned ratio. A high ratio indicates ease in paying interest – servicing debt, whereas a lower ratio indicates difficulty. Not only is the ratio itself important, but so is its stability over time, as lenders will be more inclined to accept a smaller margin of cover if earnings are relatively secure.

Liquidity Ratios

There are two ratios used to assess a firm's current liquidity, the Current Ratio and the Quick Ratio. The Current Ratio is the ratio of total current assets to total current liabilities, and is used to measure the short run debt paying ability of a business.

The extent to which short-term creditors can be paid by converting current assets, such as short-term marketable securities, accounts receivable, inventories and prepaid expenses to cash, is the generally accepted measure of short-term solvency.

$$\text{Current Ratio} = \frac{\text{Current Assets}}{\text{Current Liabilities}}$$

The Quick Ratio is a stricter test of the short run debt paying ability of a firm, without relying on the sale of inventory. It indicates whether the firm could pay all its current liabilities if they came due immediately (also known as the Acid Test). It is calculated the same way as the Current Ratio, but after deducting inventories and prepaid expenses (such as insurance). It is based on cash, marketable securities or assets, and recoverable debtors.

$$\text{Quick Ratio} = \frac{\text{Current Assets – Inventory and Prepayments}}{\text{Current Liabilities – Bank Overdraft}}$$

Efficiency Ratios

These ratios indicate the efficiency of the cash cycle. There are three main ratios:

Stock Turnover Ratio: $\dfrac{\text{Cost of Goods Sold}}{\text{Stock Value (\$ opening stock – \$ closing stock)}}$

Debtor Ageing Ratio (in Days): $\dfrac{\text{Trade Debtors}}{\text{Sales}} \times 365$

Creditor Ageing Ratio (in Days): $\dfrac{\text{Trade Creditors}}{\text{Purchases}} \times 365$

Inventory is often a firm's largest current asset and the inventory expense (the cost of goods sold) is often the largest expense. There are two main systems for assessing inventory, the Periodic Inventory and Perpetual Inventory systems. Under the periodic system, at the end of the accountancy period, the business makes a physical count of the inventory, and applies the appropriate unit cost. Under the Perpetual system, each sale and purchase of inventory is recorded. This is useful for firms which sell relatively small numbers of individually identified high value items, such as motor vehicles, jewellery and real estate, and has the advantage of always being up to date. Having determined the inventory, there are several methods of attributing costs to the items:

- **Specific identification –** used mainly by those dealing in relatively small numbers of individually identified high value items, such as motor vehicles, where a value can be assigned to each item.
- **Standard cost –** assigns costs to inventories at predetermined rates, based on planned costs and efficiency levels, with adjustments for deviations from these rates if appropriate.
- **Average cost –** based on the weighted average cost of inventory during the period. It is determined by dividing the cost of goods available for sale (beginning inventory plus purchases), by the number of units available. The ending inventory and cost of goods sold are calculated by multiplying the number of units by the average cost per unit.
- **First in first out cost (FIFO) –** the business must keep a record of the cost of each inventory unit purchased. The unit costs used in calculating the ending inventory may be different from the unit costs used in calculating the cost of goods sold. Under this system, the first costs into inventory are the first costs out to cost of goods sold. Ending inventory is based on the cost of the most recent purchases.
- **Last in, first out cost (LIFO) –** this method also depends on the costs of particular inventory purchases, but is the opposite of FIFO. Under the LIFO method, the last costs into inventory are the first costs out to cost of goods sold. This leaves the oldest costs – those of beginning inventory and the earliest purchases – in ending inventory.

Australian accountancy standards only allow the first four ways of attributing costs to items, although LIFO is used in the USA and sometimes by branches of US firms located in Australia. It has been criticised for allowing managers to manipulate net profit because buying inventory close to the end of the accounting period, and thereby increasing the cost of sales, can reduce net profit and result in the payment of less tax. Similarly, managers can make net profit look better than it is by delaying significant inventory purchases until the next accounting period.

Each of the other inventory measuring methods has advantages and disadvantages, and some larger businesses use more than one method depending on the types of inventory they have.

Profitability Ratios

These include the gross and net profit margins, and return on assets.

Gross profit margin indicates whether the average mark up on the cost of goods sold covers all operating costs such as general and administrative expenses and shows a profit.

$$\text{Gross Profit Margin} = \frac{\text{Gross profit}}{\text{Sales Revenue}} \times 100$$

Net Profit Margin is the percentage of profit earned on sales. If low when compared with others in the industry, a firm's costs may be too high or the prices it charges may be too low, or both.

$$\text{Net Profit Margin} = \frac{\text{Net Income}}{\text{Sales Revenue}} \times 100$$

Return on Total Assets gives an indication of a firm's effectiveness in generating a profit. The higher the ratio, the greater the return on assets, but this has to be balanced against other factors such as risk and the sustainability of the business.

$$\text{Return on total assets} = \frac{\text{Net profit before tax}}{\text{Total Assets}} \times 100$$

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Australian Prudential Regulation Authority (APRA) **<www.apra.gov.au>**

Australian Securities and Investment Commission (ASIC) **<www.asic.gov.au/asic>**

Australian Stock Exchange (ASX) **<www.asx.com.au/asx/homepage/index.jsp>**, and **<www.asx.com.au/em>**

Australian Venture Capital Association Limited (AVCAL) **<www.avcal.com.au>**

Bendigo Stock Exchange (BSX) **<www.bsx.com.au>**

Business Angels Pty Ltd **<www.businessangels.com.au>**

Commonwealth Bank of Australia Ltd **<www.commbank.com.au>**

Insurance Council of Australia (ICA) **<www.ica.com.au>**

International Banks and Securities Association (IBSA) **<www.ibsa.asn.au>**

Law Society of South Australia Inc **<www.lssa.asn.au>**

Law Society of Tasmania **<www.taslawsociety.asn.au>**

Law Institute of Victoria **<www.liv.asn.au>**

National Institute of Accountants **<www.nia.com.au/index.asp>**

Ninemsn **<www.smallbusiness.ninemsn.com.au/smallbusiness/money_matters/loans_credit.asp#basics>**; **<smallbusiness.ninemsn.com.au/smallbusiness/bizplan/financial_information.asp>**

Newcastle Stock Exchange (NSX) **<www.newsx.com.au>**

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The Law Society of Western Australia; **<www.lawsocietywa.asn.au>**

The National Institute of Accountants; **<www.nia.com.au/index.asp>**

Westpac Bank; **<www.westpac.com.au/internet/publish.nsf/Content/BBBISB+Show+me+the+money>**

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