

A Manual for All

PRACTICAL BUSINESS VALUATION

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This ebook is a summary of the introductory Business Valuation Course presented by Tony Arena to Finance Professionals around the world.

DISCLAIMER

You are advised that the information contained herein is to be used as a guide only in valuing businesses.

You should not rely solely on the information contained herein as a basis for making a definitive business valuation.

You are advised that in valuing a business for formal purposes you should always consider hiring the services of a professional business valuer.

A business can only be valued after due consideration of the circumstances that apply to that particular business and the market and industry factors present at that time.

INTRODUCTORY CONCEPTS

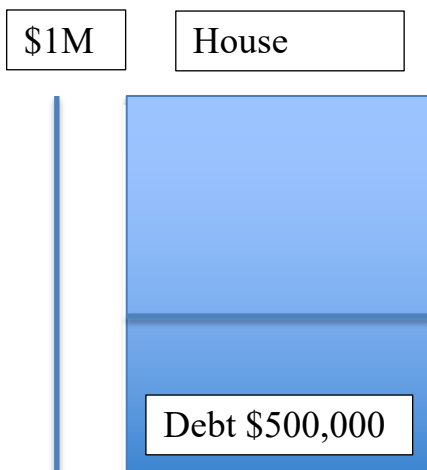
Size matters

You will hear different opinions about business valuation and the way to go about it. This paper addresses business valuation issues and methodologies that apply to businesses in the value range of \$100,000 to let's say \$10 million. There are of course differences in approach when comparing businesses at either end of that range. Above that range, you will normally find a different dynamic applying by virtue of simply size alone. And when we move to public companies, the situation changes again as the liquidity present and infrastructure available to business in this category moves the needle of business value.

Enterprise Value v Equity Value

Here, I will refer to either equity value or enterprise value. Unless otherwise specified, I will be talking about enterprise value. There is a separate chapter, explaining a conversion from enterprise value to equity value.

Enterprise value refers to the value of the operating assets of the business. Let's look at the comparison using a simple example. Say you are buying a house. The house is valued at \$1,000,000. The owner of that house has a mortgage of \$500,000. The value of the enterprise (The House) is a million. The owner will pay off the mortgage or take the debt with them when they sell. If you were only buying the equity that the owner had in the house, you would only pay \$500,000 and take over the debt. This never happens in real estate, but it can happen in purchasing or valuing a business.



To calculate equity value from enterprise value, subtract debt and debt equivalents and add cash and cash equivalents.

Equity Value = Enterprise Value – Debt and Equivalents + Cash and Equivalents

In the above example:

Enterprise is worth \$1M

Owner had equity of \$500,000

If the owner left \$100,000 for you in the front room the equity equation looks like this:

Equity = \$1,000,000 - \$500,000 + \$100,000
= \$600,000

We will talk later about whether the cash would stay in as part of the enterprise in a business transaction, however for the moment we will take it to be excess cash and hence would normally be cleared from the company accounts before the transaction is completed.

International Valuation Standards Council (IVSC)

When compiling a valuation report, a valuer can choose to do so under official guidelines which have been created to assist a valuer. One such set of guidelines is APES225, the guidelines, which are there to assist accountants in Australia. Another such a guideline is the International Valuation Standards promulgated by the IVSC. In this e-book, I only refer to the IVSC standards.

The Concept of Market Value

The concept of Market Value is that formulated in *Spencer v. The Commonwealth of Australia* (1907) CLR 418 as:

“The price that would be negotiated, by voluntary bargaining between a willing seller and a willing purchaser, both of whom are fully conversant with the land and its potentialities, but neither of whom is so anxious to trade as to overlook any ordinary business consideration.”

Further, the international Assets Valuation Standards Committee (TIAVSC) Volume 1, June, 1994 (IVS - Concepts/Principles p.7), defines Market Value as follows:

5.2 “The estimated amount for which an asset should exchange on the date of valuation between a willing buyer and a willing seller in an arm’s length transaction after proper marketing wherein the parties had each acted knowledgeably, prudently, and without compulsion.”

A *market value* assessment therefore envisages an ideal sale of a property and/or business, as negotiated between prudent and fully informed parties both willing to negotiate but neither overanxious to trade.

Market valuations of business are usually determined by establishing the unencumbered value of the business as a going concern including plant, fixtures, fittings, equipment, stock, goodwill, and working capital requirements.

The Myth of Market Value

While the definition of market value is the go-to definition for courts and independent authorities alike, one should ask the question “How relevant is this concept to business valuation today?” Just as important is the question “How many transactions in the market are done at market value?” Many business sales are transacted outside market value. Some examples:

- Distressed sale. (Below market value)
- Purchase of a business where the acquirer gains synergistic benefits from the purchase. (Above market value. Also can be called Investment Value – See IVSC)
- Non-arm’s-length transactions, where the buyer and seller for example, have a pre-existing relationship and the transaction is done without reference to market value. Such transactions could be between partners according to a pre-existing agreement or family members.
- Where one party has a greater knowledge and hence an advantage over the other.
- Where there are unique assets involved in the transaction, and there is no reference in the market to their value.

Goodwill - What is it and should you pay for it?

Goodwill will be represented in many business sale transactions where the sale price is greater than the tangible assets in the business. The balance will be represented by goodwill. See the equation below.

Price/Value = Tangible Assets, + Intangible Assets

The approach in this e-book is to value the business as a composite asset, then break down its components, firstly, by arriving at the value of the tangible assets, considering the need for working capital, leaving the value of goodwill (if any) as the remainder.

A valuer can be asked to simply value goodwill, however, this is a specialised area of asset valuation and is not an area we will be covering in this book.

“Market valuations of business are usually determined by establishing the unencumbered value of the business as a going concern including plant, fixtures, fittings, equipment, stock, goodwill, and working capital requirements.”

History

In the early days of business valuation there was a fair amount of scepticism as to any value at all being attributed to goodwill. That is because originally businesses were valued on their tangible assets. Furthermore, most of the “goodwill” of the business was seen to be so intrinsically bound up with the owner that on the owner’s exit from the business the goodwill was seen to be on the way out the door with that owner.

As we have moved into the services age and more recently, the information and knowledge age, more of the businesses being transacted and valued, are largely made up of goodwill. This requires the valuer to scrutinise the non-financial factors of the business and consider the overall value of the business considering this transactional risk. With the advent of technology and systems enabling these businesses to become much more transferable, goodwill is often seen as a safe bet when buying or valuing a business. Having said that, buyer and valuer should still beware.

Those non-financial features will often include:

- Location, geography, growth, condition and legality of premises, income, lifestyle, tradition, ethnic mix, saturation, development, competitor activity, etc.
- Patronage, historical trading performance, projected trading performance, fee scales accepted by market, industry comparisons, etc.
- Dependability of contracts, current staffing and availability of staff, security of tenure (i.e. leasehold or freehold), lease conditions, history, supply line, research and development, etc.
- Skill - special skills, specific qualifications, technical competence, technical support, technical facilities and back up, administrative and management capabilities, legal qualifications, etc.
- Quality of services and products, advice and materials used and offered.

BUSINESS VALUATION FRAMEWORK

The IVSC guidelines distinguish between approaches and methods. I have summarised this framework below. The three approaches, namely, income market and cost are as they are set out in the IVSC. On the second row are some of the main methods used today.



1 The Cost Approach is also called the Asset Valuation Approach. Either way, you are arriving at a value of the Net Assets of the business in case of a sale, by the most appropriate of the methods listed under that approach.

2 The main area of contention in business valuation is defining profit and then arriving at the multiple. The greatest mistake is for the valuer to use the wrong multiple for the profit figure that the valuer selects.

The main profit definitions used in the private business valuation market are in the table below. There are many others but for the purposes of this book, we will concentrate on these.

EBIT	Earnings before interest and tax
EBITDA	Earnings before interest, tax, depreciation and amortisation
PEBIT*	Proprietor's earnings before interest and tax
PEBITDA*	Proprietor earnings before interest, tax, depreciation and amortisation

*In each of these cases, the owner's wage (one owner) is added back to profit to give an owner's return.

Other types of profit, like Net Profit after Tax (NPAT) and similar are rarely used since tax is handled differently by owner to owner, so to level the playing field, tax is ignored for the purpose of valuing private businesses at this level.

CORE PRINCIPLES OF VALUATION.

There is no better description of these principles of valuation than the following, taken directly from the introduction to the IVSC Guidelines. They guide the valuer and yes they should be strictly adhered to at all times.

1. Ethics

Valuers must follow the ethical principles of integrity, objectivity, impartiality, confidentiality, competence and professionalism to promote and preserve the public trust.

2. Competency

At the time the valuation is submitted, valuers must have the technical skills and knowledge required to appropriately complete the valuation assignment.

3. Compliance

Valuers must disclose or report the published valuation standards used for the assignment and comply with those standards.

4. Basis (ie, Type or Standard) of Value

Valuers must select the basis (or bases) of value appropriate for the assignment and follow all applicable requirements. The basis of value (or bases) must be either defined or cited.

5. Date of Value (ie, Effective Date/Date of Valuation)

Valuers must disclose or report the date of value that is the basis of their analyses, opinions or conclusions. Valuers must also state the date they disclose or report their valuation.

6. Assumptions and Conditions

Valuers must disclose significant assumptions and conditions specific to the assignment that may affect the assignment result.

7. Intended Use

Valuers must disclose or report a clear and accurate description of the intended use of the valuation.

8. Intended User(s)

Valuers must disclose or report a clear and accurate description of the intended user(s) of the valuation.

9. Scope of Work

Valuers must determine, perform, and disclose or report a scope of work that is appropriate for the assignment that will result in a credible valuation.

10. Identification of Subject of Valuation

Valuers must clearly identify what is being valued.

11. Data

Valuers must use appropriate information and data inputs in a clear and transparent manner so as to provide a credible valuation.

12. Valuation Methodology

Valuers must properly use the appropriate valuation methodology(ies) to develop a credible valuation.

13. Communication of Valuation

Valuers must clearly communicate the analyses, opinions and conclusions of the valuation to the intended user(s).

14. Record Keeping

Valuers must keep a copy of the valuation and a record of the valuation work performed for an appropriate period after completion of the assignment.

VALUATION PROCESS

A valuer should prepare the report according to the instructions from the instructing party. Unless the instructions are asking the valuer to do something that's illegal or unethical, the valuer should follow these instructions. The process for a valuer may look something like the following.

1. Valuer takes initial instructions on the matter.
2. Valuer determines whether he or she has the competence to complete the assignment.
3. Client and valuer agree on a fee and time for completion.
4. Both parties signed Letter of Engagement
5. Fee paid in part or in full.
6. Valuer gathers all information, financial and non-financial.
7. Valuer chooses approach, method and standard of value to adopt.
8. Valuer does necessary research on industry and economy
9. Valuer researches any comparable sales data.
10. Valuer researches other sources of evidence
11. Valuer completes, signs and delivers report.

INFORMATION REQUIRED

Financial

A minimum of 3 years financial statements is required if available.

These statements are to include balance sheets, profit and loss accounts, trading accounts, statements of cash flows and depreciation schedules.

These should be compared with the business taxation returns and differences understood, particularly if tax paid over some years departs markedly from 30% of net profit.

If the date of valuation is at a time say in March of a year and balance date is 30th June, OR, the valuation report date is after year-end and the formal accounts are not ready, management accounts should be requested.

Some small businesses do not keep management accounts and only rely upon the year-end accounts, mainly for tax considerations.

But with the advent of Business Activity Statements (BAS) on a minimum quarterly basis, some records of receipts and expenditure are now being kept by most businesses even if on only a most rudimentary basis.

BAS and supporting data, including management accounts if any, should be requested for the period from the most recent formal balance date.

The majority of small businesses, in my experience, use the XERO MYOB system of management accounts.

Be aware of which version of MYOB reveals for example, stock values and cost of sales.

Not all versions do and often this area is only estimated by the proprietor.

If it is a small manufacturing concern, make sure a trading statement is included in the management accounts.

If it is a consulting business, consider the recognition in the accounts, both final and management, of work-in-progress.

Clarify the basis of income and expense recognitions, i.e. cash or accrual.

If accrual and cash flow is a consideration in the business purchaser's mind you will need at some stage in the valuation process to adjust for accrual income and expenditure by considering accounts receivable and payable.

In summary the basic accounting information requested is:

- a) 3 years financial accounts plus tax returns.
- b) Management accounts and/or Business Activity Statements for periods not covered by the final accounts.
- c) Most recent depreciation schedule and/or list of plant and equipment.

Extra information, which may need to be requested, is:

- ❑ Budgets for sales, expenditure, cash and capital expenditure
- ❑ Aged list of debtors and creditors
- ❑ Revenue by customer
- ❑ Monthly sales figures
- ❑ Supply sources.

Third Party Information

The Internet:

By simply doing a search on a search engine, you will find research and industry papers, news and quite often industry multiples relating to particular industries or sectors.

Specific Websites

Specific information is often available from industry associations.

The Australian Taxation Office website (ATO) contains benchmark information for a limited range of industries.

Jarot Business Assessments is a monthly newsletter that publishes industry multiples and commentary on what is happening in the small business market.

As well as financial benchmarks information, statutory regulations can apply to create barriers to entry. Eg hotel licences, local council development approvals, prudential capital requirements for financial planners and financial advisers.

Non-Financial Information

Premises and Lease

Premises

While studying the lease document it is also important to consider limitations imposed on the use of trading premises by local Councils.

The Council should be visited and the following should be checked:

Zoning:

- (a) Does the use of premises comply?
- (b) If a non-conforming use, how heavy is council supervision?
- (c) What is the level of complaint from neighbours - eg automotive repairers, environmental considerations?
- (d) How easy is the business to relocate to an appropriate zoning?

Alterations:

Are there any council or a government authority plans which may affect a business' profits, eg a median strip on a busy road which fronts a retail shop or a by-pass of a country town.

Documentation

Are there any copies of Development Applications or Approvals or Building Applications or Approvals, either held at the Council or by the owner's solicitor?

Surplus Real Estate:

If the business has surplus real estate how easy is it for disposal?

Lease:

Rent.

Lease term and Options.

Do these periods give sufficient time to make a profit? Are the lease provisions to exercise the option unusual or cumbersome?

Use

Is the current use consistent with the lease?

Outgoings including advertising and marketing levies.

Quantum compared to rent; are payments up to date? What is the position regarding contributions from other tenants? What are the advertising and marketing levies spent on? Has the expenditure been effective?

Demolition clause.
Notice period and compensation if any?

Shopping Centre Leases:
Relocation clause.
Notice period. Who chooses alternative accommodation? Who pays cost of renovations?

Renovation of premises.
Who pays and who decides on standard of finish?

Renovation of the centre.
Access to shops; compensation.

Centre generally.
Relocation of nearby shops; alterations to access; can centre owner allow competitive similar shops nearby and if so on what basis?

Parking spaces.
Is the tenant entitled to parking? How close is it to the business.

Deliveries.
Access to shops; ease of access to shop and centre especially for containerised vehicles.

Area leased.
Are all areas important to the business' success covered in the lease?

Assets

Plant and Equipment

A thorough inspection of the plant and equipment should be made to determine amongst other things:

- a) Condition and modernity – how much to upgrade?
- b) Whether it is owned or leased
- c) Whether it is core or non-core – if non-core - sell it now.
- d) Whether there are any valuations of equipment available
- e) Whether there is a depreciation schedule
- f) Whether parts are readily available

Stock

Remember - High closing stock means high gross profit

- Do opening and closing balances agree from year to year?
- Check obsolete stock.
- Is stock clean?
- How often is physical stock take done and by whom?
- Calculate days stock-turn

- i.e.
- Financing of stock shortfall on business sale.
- Calculate mark-up i.e. $\frac{\text{Gross profit over}}{\text{Cost of goods sold}} \times 100$
- Overall and by product line
- How are yearly seasonal stock peaks financed?
- Check items in trading account. Are they directly related to gross profit determination? Are there any items in profit & loss account that should go in trading account as cost of goods sold?
- Check stock supply agreements.
- What is supplier returns policy?

If you are valuing the business by the Income Method, it probably doesn't matter what the equipment is worth, as the whole entity and all its assets are what is valued according to the risk and return equation.

If you are using an Asset Valuation method, then the assets become all important and it is important to determine what Asset Valuation method you will use. You will use one of the following.

The optimum result is to achieve a price for the stock that is equivalent to *Stock at Valuation*. However, this is not always achieved.

Transferability and Maintainability

When valuing a business, a valuer needs to understand the non-financial features of a business that relate to these two important features of the business.

History of Ownership	At least three years shows a pattern
Image	How is the business perceived by the market
Client & Supplier Contracts	Contracts with clients add value. Relationship with main suppliers also important
Patents, Trademarks & Designs	Must be registered and protected where necessary
Tenure or lease	See above
Employees	Seriously underrated asset in a business
Owner Role In Business	Owner should not be too important
IT and Systems	Business needs to have systems in place
Key Financial Ratios	See above
Spread of Clients	Fewer clients means greater risk should one fail
Smooth Trading Pattern	The history points to the future
Competitive strength	This shows resilience

VALUATION APPROACHES

Having adjusted the historical financial results of performance a valuation method can be chosen.

As highlighted earlier various valuation approaches are available depending on the result of the investigation of factors surrounding the business.

1. Income Approach
2. Market Approach
3. Cost Approach

Approach 1 – Income Approach

This approach to valuation quantifies in percentage or factor terms the returns obtained by the business investor from the capital investment.

The formula is:

$$\frac{\text{Net adjusted surplus}}{\text{Purchase price}} \times 100 = \text{Return \% on investment}$$

The return on investment as a percentage can be converted to a factor by dividing the percentage return into 100.

ROI	Multiple
12.5%	8
20%	5
33%	3
50%	2
100%	1

The method's shortcomings apply to all capitalisation methods. For example:

- The time value of money is ignored.
- The method assumes smooth annual receipts of net adjusted surplus.
- The returns are assumed by the method to continue into perpetuity.
- All assets are assumed to being utilised equally efficiently
- As a choice between alternative business acquisition opportunities, differences in sheer size of business purchase prices and thus for example some financing problems are ignored.

There is a subset of this approach called Discounted Cash Flow Method which is discussed later in this ebook.

Approach 2 – Market Approach

The IVSC guidelines state that the market approach is the primary method that should be used in business valuation. What we are discussing here it's not the same as "market value", when those words are used to denote a standard or basis of value. Market method is simply valuing a business according to evidence that's available in the marketplace around businesses in the subject industry, subject price range and subject time frame. I can't stress enough that relevance in terms of time, industry and price range is paramount. You might say that evidence is king, but like in a court of law, it has to be relevant to the issue at hand.

And gathering evidence, we looked at the different sources of evidence that you might uncover in a valuation exercise. The most relevant pieces of evidence in order of probative nature are:

1. Evidence of recent sales in relevant industries and similar price ranges, relevant in time to the date of the valuation.
2. Evidence of recent sales in similar industries but not as relevant as evidence in category one.
3. Evidence of businesses for sale around the time of the valuation date.
4. Valuations done by other brokers or valuers
5. Opinions of experts in the particular field.

Some of the above you could rely on in giving evidence in court to support a valuation. Other pieces of data you might simply use to fine tune your own opinion.

Approach 3 – Cost or Asset Approach

This method consists in assigning separate values to all the assets of the business and valuing the business at the total figure.

Its shortcomings are:

- a) Multiple subjective views in valuing all the assets.
- b) It assumes that the total assets can be utilised to generate acceptable future maintainable profits.
- c) If the assets can only generate minimum profits, liquidation values should be used.
- d) It places less emphasis on the concept of future maintainable profits.
- e) Excessive total value can be derived if enterprise is asset heavy, eg manufacturing concerns (Plant etc.) and hardware outlets (Stock).

The different methods of valuing assets are:

Going Concern Value

This may be the highest at which assets are valued. It is the value of the assets in situ, or in their current position and being used in a business. This figure is invariably higher than the net realisable value of the assets. When you look at a going concern valuation, if you look hard you will always see some “goodwill” built into the value ascribed. This is probably the most common method adopted in business valuation.

Replacement Value

The price you would have to pay if you had to go out and pay for that equipment in its current condition. Can take into account some of the costs of installation etc. A useful method in a business making little or no profit.

Depreciation Value

This is obviously the value of the equipment according to the depreciation schedule and considering any recent depreciation. Of course, the rate of depreciation allowed by the tax authorities is often very generous to business owners, and hence depreciation value is often less than its going concern or replacement value. Most business sellers will want to sell their assets for no more than the depreciation value, otherwise tax that would not otherwise be payable may become payable. In some cases the figure recorded against the equipment in the contract is a matter of negotiation.

Net realisable Value

What you would get for the equipment if you had to sell it immediately, taking into account any sale commission, auction/dealer fees and transport costs, if so required. Often also called “*liquidation value*”

The asset method is best used, if at all:

- A) As a check on other methods
- B) Where the business has low assets compared with its total profits.

OTHER CONSIDERATIONS

Rules of Thumb

Many businesses are valued by the application of rules of thumb to various financial results.

Some businesses valued in this way are professional practices (eg Dental, Medical, Consulting Engineering, Accounting) Insurance Brokerages, and Property Management Rent Rolls.

Rules of thumb have advantages including ease of application, acceptance by the market and because they are often applied to gross income or some other single figure. It is possible for mental calculations of worth to be made - a most useful advantage especially during often lively discussions at the negotiating table.

However, because of their simplicity of application and almost total limitation to gross income figures, rules of thumb have some disadvantages, and these include:

- a) An assumption that gross income reflects the most economic use of all the business' other assets like plant and equipment and furniture and fittings.
- b) Without adjustment of existing and past income for future variations in the business the method can ignore business potential.
- c) Differences are ignored in operating financial and management costs and expertise.
- d) Movements in business cycles or broader economic factors are ignored.
- e) No distinction is drawn between two businesses of different sizes. The sheer size of a particular purchase price may limit the number of participants in the market who can raise the necessary cash.

Recognising that rules of thumb are accepted in the marketplace for the reasons given before, I believe that a combination of methods should be used. These are tedious traditional calculations involving add backs, estimate of cash flows and consideration of estimated future maintainable profits before interest and tax, as well as simplistic rules of thumb.

Above all, I believe it is misleading and dangerous to apply rules of thumb as an exclusive or only method of valuation in a particular circumstance.

Valuation of Micro Businesses

Where the business has a turnover of less than say \$750,000 per annum, you may use any or a combination of the above methods. However there is another method which has currency and authoritative approval at this level of business appraisal. It is the capitalisation of one year's *discretionary cash flow to an owner* plus assets.

You will often hear it used as a quick and easy method – “One year's profit”.

Moreover, you will not always add the full value of the assets, if the cash flows are not adequate to justify such an investment.

We said *discretionary cash flow to an owner*. This means that we don't make any adjustments of add-backs and we include the owner's wage as a part of profit. If you tried to use the ROI or profit method at this level of valuation, you would come up with some very small profit figures, often coming to such figures by assigning an arbitrary wage to an owner. This makes the ROI method inherently unsatisfactory at this level.

DISCOUNTED CASH FLOW ANALYSIS

During this program you will learn the discounted cash flow method.
At the end of this ebook, you will be able to

- Multiply cash due in the future by an appropriate discount factor to produce a Present Value.
- Understand the two key factors affecting discount rates.
- Work with a discounted cash flow spreadsheet model that you can take home and use.
- Understand the Net Present Value and the Internal Rate of Return.
- Understand how to produce a Net Present Value by discounting multiple cash flows at an appropriate discount rate.

Common sense approach

Let's leave out the influence of inflation and the vagaries associated with and predictions of the future.

Exercise 1: Assuming an investment rate (or required rate of return) of 10% per annum in real terms. Assess and answer the following.

1. Would you prefer to receive \$90 now or \$94 now?
2. Would you prefer to be given \$90 now or \$98 in 1 year's time?

Discounting allows us to assess the worth of money as at **today** (Present Value). This is the reverse of an investing, compounding or a Future Value approach, in assessing the value of cash flows.

By using discounting, we assess “what is an amount of money due in ‘X’ years’ time worth **‘today’?**”

We can “**Proof**” these assessments by “compounding” the Present Value figure at the required rate of interest or return rate to arrive at or near the “Future Value”. The analogy is like climbing up and down a ladder, the distance between the rungs would represent the required rate of return or discount rate.

Or another way of looking at the Proof is to ask, “What amount do I have to invest today at the required rate of return in order to achieve the Future Value amount?”

For example, if the Future Value is \$110 and the required rate of return (or discount rate) is 10% per annum, the Present Value (or the amount that you would have to invest today to achieve \$110 in one years time) would be \$100.

Exercise 2: Looking at your 10% PV tables set out below. What amount of money would you have to invest today in order to achieve a Future Value of \$110 due in 3 years, and using a discount factor in the table below (use the 10% column)?

PV \$1 - Table 1

Present Value of one dollar (PV \$1)			
Yrs	8%	9%	10%
1	0.92593	0.91743	0.90909
2	0.85734	0.84168	0.82645
3	0.79383	0.77218	0.75131
4	0.73503	0.70843	0.68301
5	0.68058	0.64993	0.62092
6	0.63017	0.59627	0.56447
7	0.58349	0.54703	0.51316
8	0.54027	0.50187	0.46651
9	0.50025	0.46043	0.42410
10	0.46319	0.42241	0.38554

Or another way to look at this is ...

PV \$1 - Table 2

(PV \$1) 10% table									
Yr 1	Yr 2	Yr 3	Yr 4	Yr 5	Yr 6	Yr 7	Yr 8	Yr 9	Yr 10
0.909	0.826	0.751	0.683	0.620	0.564	0.513	0.466	0.424	0.385
09	45	31	01	92	47	16	51	10	54

Your answer should be...

Present Value of one dollar (PV \$1)			
Yrs	8%	9%	10%
1	0.92593	0.91743	0.90909
2	0.85734	0.84168	0.82645
3	0.79383	0.77218	0.75131
4	0.73503	0.70843	0.68301
5	0.68058	0.64993	0.62092
6	0.63017	0.59627	0.56447
7	0.58349	0.54703	0.51316
8	0.54027	0.50187	0.46651
9	0.50025	0.46043	0.42410
10	0.46319	0.42241	0.38554

$$.75131 \times \$110 = \$82.64$$

Exercise 3: Prove it: i.e. if you invested \$82.64 today at 10% pa what would it be worth at the end of 3 years?

End of year		\$82.64
1	1 yrs interest @10%	\$8.26
1		\$90.90
2	1 yrs interest @10%	\$9.09
2		\$99.99
3	1 yrs interest @10%	\$9.99
3		\$109.98

Exercise 4: Now do the same for \$121 due at the end of year 5?

Exercise 5: Include the proof.

So what have we learnt from the above example?

The amount of **\$82.64** is the Present Value of \$110 discounted at 10% per annum for 3 years

and \$75.13 is the PV of \$121 discounted at 10% per annum for 5 years.

Factors affecting discount rates

I consider that there are two key factors affecting the choice of an appropriate discount rate. These are

1. The security of that cash flow, and
2. The perceived growth of that cash flow.

Cash Flow Spreadsheet Model

Now lets take a quantum leap. Let's look at the cash flow spreadsheet model Table A.

Exercise 6: What is the Present Value of \$1 due at the end of year 1? (Look at your 10% tables above).

Refer to **Table A** above.

Note that the Net Present Value area at the bottom of the Spreadsheet shows .90909. Or simply about 91 cents.

There are a number of valuation tables that provide a variety of discount factors or Present Values. You will now have the benefit of the Discounted Cash Flow Spreadsheet Model to play around with and get used to the way the spreadsheet model works.

Most of the cash flow model is reasonably self-explanatory. You will notice that there is a “Current” Year to input the existing cash flow elements.

Let’s see how Exercises 2 & 4 look when placed on the spreadsheet model.

Refer to **Table A** above:

You will note that the resultant Present Value of \$82.64 is shown in the Net Present Value area at the bottom of the spreadsheet.

The next stage will be to combine both cash flows from Exercise 2 AND Exercise 4. You will note that the Net Present Value area at the bottom of the spreadsheet simply adds both Net Present Values together.

Further points to consider – Look at Table B

In order to simplify the growth (includes “negative” growth) for both income and expenses, there is a formula in each cell that will simply calculate the cash flow from the current year and multiply the previous years cash flow by the growth rate shown above.

There are spare rows for you to input any number of income or expense items. This is entirely your choice, and the model provides that flexibility for you.

Once you have input as much of the cash flow items that would give you a reasonable representation of the expected cash flow, then you can extract the Net Present Value (NPV) of the expected cash flows. In addition an Internal Rate of Return (IRR) area is available to allow you to enter whatever likely purchase price you have in mind, and extract the Internal Rate of Return for that cash flow scenario.

This model has been designed to provide you with a simple tool to test the sensitivity of various items of that cash flow. i.e. expected strong growth earlier rather than later, would result in a higher NPV. You will need to play around with the model in order to get a feel for the sensitivity of the cash flow and the way the model works.

Let's look at **Tables C** and **D**. A growth rate schedule is set out above each year for both income and expenses. For example, you may consider that there may be a higher growth in the 1-3 year period than the 4-5 year period, and this cash flow model allows you to simply make this allowance.

Let's look at some of the model workings. We'll look at the difference between higher early growth rates (**Table C**) as opposed to higher later growth rates (**Table D**), although the average growth rate remains the same. The purpose of these exercises is to test the sensitivities of a variety of cash flow scenarios.

Note that the Net Present Value figure in **Table C** is now \$4,941.58, as opposed to the model in **Table B**, showing \$7,298.76, although the average growth rates for both income and expenses have remained the same between each model. This is due to the higher growth being positioned later in the cash flow time line.

The next model shows the sensitivity of the growth being positioned later in the cash flow time line. This results in a Net Present Value figure of \$4,790.88.

The benefit of this model is that it allows you to apply any number of elements such as cash flow, growth, discount rate, etc in order to determine which of these elements are highly sensitive.

The spreadsheet model is simply a tool that provides some assistance in comparing different cash flows and allows experienced operators to test the sensitivity of any number of scenarios. It is not intended to be a definitive model catering for all needs. The vagaries of the underlying assumptions must be understood

FINANCIAL ANALYSIS

At about this point, the financial information can begin to be considered and analysed:

EXCLUSIONS

It is important to have regard to exclusions from the accounting system in the following regard:

Non-purchased assets, eg a non-purchased rent roll in a real estate agency.

If the accounts system is cash only what recognition is given to invoices issued but unpaid and to creditors who have submitted valid invoices but are awaiting payment.

ACCOUNTS ANALYSIS

The submitted accounts should have income analysed to show the following calculations:

Percentage of expenditure items to income - this allows comparison with benchmarks.

Percentage of expenditure items to total expenditure

Movements from year to year and explanations

Aged list of accounts receivable and payable

Also pay attention to the following items:

SALES:

STOCK:

Opening and closing - see comments under Assets above.

PURCHASES:

Calculate percentage to sales.

COST OF GOODS SOLD

- Should other items directly related to production of trading goods be included - calculate those items' percentage to sales.
- Calculate percentage of Cost of Goods Sold to Sales.
- If Cost of Goods Sold is higher than a reasonably acceptable industry benchmark, find out why. It could be due to:

GROSS PROFIT:

- Calculate percentage to sales.
- Calculate mark-up i.e. Gross profit to Cost of Goods Sold.
- Understand the difference between mark-up and gross profit.

EXPENDITURE:

- a) Calculate major items as percentage of sales.
- b) Calculate major items as percentage of total expenditure.
- c) Identify non cash items eg depreciation (except in case of video stores and if a sinking fund is receiving cash contributions.)
- d) Identify non recurring items
- e) Identify private expenditure items
- f) Isolate wages paid to non-active (eg family members) employees
- g) Assess whether family associated employees are paid market rates if essential in business or whether they and their remuneration, if any, are excessive or superfluous.
- h) Identify excessive superannuation payments
- i) Identify directors fees
- j) Isolate fringe benefits

NET PROFIT -

- a) Explain variances in net profit
- b) Explain variances in adjusted net cash surplus before interest, depreciation, tax and amortisation

TAX

Does tax rate look reasonable? Reasons for variance from 30% average over time.

SENSITIVITY ANALYSIS

Percentage alterations in sales dollars and volume and expenditure.

ADJUSTMENTS TO ACCOUNTS

Adjustments can be made to the submitted financial statements to allow for:

- a) Non-recurring items.
- b) Non cash items such as depreciation and amortisation (except video shops)
- c) Exclusion of finance costs except on floor plans, eg motor dealers
- d) Exclusion of unrelated costs such as legal and accounting fees and borrowing fees
- e) Excessive wages to family members

- f) Excessive superannuation contributions
- g) Directors' fees
- h) Undisclosed liabilities for tax, warranties, litigation, etc.

NON FINANCIAL ANALYSIS

As a valuer you should thoroughly appraise the business and its non-financial features. We can't cover them all here, however, inquiries can be made in the following areas:

- Marketing
- Administration and Systems
- Competition
- Staff

Marketing.

- a) How does the business get its sales?
- b) Is the advertising allowance sufficient?
- c) Is there a limited number of customers?
- d) Is there a marketing plan?

Administration and Systems

- a) What record keeping system is used?
- b) Is it a simple and well-accepted system, or is it custom-made, requiring expertise to use it?
- c) Is there sufficient computer hardware and software?
- d) Are there adequately protected customer lists?
- e) Do any trade restraint agreements exist and are they complied with - especially those in the franchise agreement?
- f) Is there an operations manual?
- g) Is there a general training manual
- h) Control of customer and supplier lists
- i) Are there unique procedures products etc.?

Competition

- a) Who are they perceived to be by its owners?
- b) What is their location?
- c) Do they give better service? If so - why?
- d) What is the product or service differentiation that gives the business the edge?

Staff

- a) How reliant is the business on the owner?
- b) Who are the key people and can they be retained with certainty?
- c) How scarce are replacement staff in terms of expertise and qualification?

- d) Are there any terms of employment which are substantially above market?
- e) Do the accounts make sufficient provision for long service leave?
- f) Are there substantial amounts of annual leave owing?

MARKET VALUE RULES

At the end of the day, the Market is king. Theoretical business valuation has a place in the scheme of things only if it is market-based.

In Valuation Standard 1 (Market Basis of Valuation - IVS 1-5), The International Assets Valuation Standards Committee (TIAVSC), states:

- Techniques and procedures will, if applicable and correctly applied, lead to a common expression of Market Value when based on market-derived criteria. Sales Comparison or other methods of market comparison should evolve from market observations. The Capitalised Earnings method or Discount Cash Flow method should be based on market-determined cash flows and market-derived rates of return. Although data availability and circumstances relating to the market or the asset itself will determine which valuation methods are most relevant and appropriate, the outcome of using any of the foregoing procedures must be Market Value if each method is based on market-derived data.
- The manner in which property would ordinarily trade in the open market distinguishes the applicability of the various methods or procedures of estimating Market Value. When based upon market information, each method is a comparative method. In each valuation situation one or more methods are generally most representative of open market activities. The Valuer will consider each method in every Market Value engagement and will determine which methods are most appropriate.

Having completed calculations and checked by a variety of methods, stand back from the job and consider whether you would buy this business at the figure you have come up with.

Do a SWOT analysis on qualitative factors.

Do a sensitivity analysis on financial matters especially revenue, overheads and cost of sales.

As a final test of the valuation figure, a business valuer will often ring around to see if such prices for businesses are being paid in the marketplace. This is often called the *sanity test*

ANNEXURE A - Frequently Asked Questions

When should you include owner's wage when calculating profit?

This depends on the size of the business and the market practice in the buying and selling of businesses.

Some businesses simply are a means for the purchaser to buy a job - thus the owner's wage is included as part of the adjusted net profit. In other words the definition of profit in such industry practices includes all owner's return.

These are businesses with sales up to about \$500,000 or \$750,000 of gross revenue. – often called “micro businesses”

At the larger end of the business scale, the owner's wage does not make as big a difference to the adjusted net profit. It makes sense to deduct it in determining profit.

You can get some strange results in micro businesses when trying to determine profit after deducting an owner's wage. There often isn't any.

The market in business sales seems to support the conventions of including an owner's wages in adjusted net profits for smaller businesses and excluding it otherwise.

Do you add back depreciation when adjusting the accounts?

There is one school of thought that says you should add it back, and an equally vocal group that suggests you shouldn't. We believe that in most cases you should not. If you do, you could be accused of unrealistically inflating a business profit and hence its value. This is especially so when the business does from time to time need to upgrade its equipment. In most cases cash flow does not equal profit. You might say it is OK to add back depreciation because you are seeking to determine the cash flows, however to project that there will not be future expenditure on equipment could be inaccurate and misleading.

You may be entitled to add back depreciation if there is no need to spend money on plant and equipment in the next three to five years.

Similarly you may *adjust* depreciation if the amount depreciated is in fact not an accurate measure of the amount by which the asset has *in fact* been depreciated.

If you are using a cash based method, as opposed to a profit-based method, you will obviously add back the depreciation, as it not a cash based deduction. If you are working a cash based model, you may not deduct depreciation but will make allowance for future cash expenses in relation to asset acquisition or improvement.

Do you include assets when working with the ROI method?

The ROI method generally asks you to value the whole entity, including assets

so that the whole investment can be measured against the return. Most professional valuers approach it like this.

If the industry in which the business is active typically has a high stock level, eg hardware establishments (or to a lesser extent, video shops), an adjustment is made for the high level of stock - see also these notes about stock valuation.

How can you reconcile Stock Market PE Rates and small business PE Ratios?

Wages etc to family members and the owner and directors in small businesses are a contributor to differences.

The financial accounts for public trading companies are prepared for investment, - not tax - purposes

Small business accounts are heavily tax-oriented

Remember that Net profits of trading companies are “after tax” while small business returns are considered by the market pre-tax.

Stocks are easily tradeable and hence seen to have a greater value for that reason.

Listed businesses are seen to be transparent in their reporting, giving the investor more information upon which to make a decision to invest.

Businesses on the stock market are by definition larger, have greater infrastructure, systems and resources, giving investors a greater level of comfort.

Why is valuing smaller businesses different from valuing larger businesses?

The inclusion or exclusion of an owner’s wage in adjusted surplus, as covered above, makes the procedure different.

The sheer size of a larger business may make financing difficult and reduce the potential purchaser market.

Larger business attracts higher multiples because the market has access to timely and accurate information, or so the story goes. And stocks are under normal circumstances immediately tradeable. The larger the business, the more likely there is infrastructure in place, systems under way and other features that add to business value.

How do the non-financial factors influence a business valuation?

We believe that the non-financial factors are more important or at least as important as the financial factors. The financial history is a mere indicator as to what the future profit might be.

The other factors, the non-financial ones, can be an even more important pointer to the same thing.

It is the non-financial factors that play a huge role in determining what the multiple of profits **will be** using the Return on Investment method of valuation.

How do you know what multiple to use in arriving at a valuation figure?

This comes down to a good dose of common sense and a great deal of experience. The range of multiples is between less than one, and 5 to 6. An

average would be say 3 times the owner's profit after a proper wage is deducted. Businesses at the lower end are ones where there is a low barrier to entry, not systemised and where the owner has a high level of influence in how the business is obtained and possibly carried out. They are not very transferable. Businesses at the other end of the spectrum are the larger ones - those with systems and infrastructure and a positive industry future. They are highly transferable.

How do you value a business that is not making any profits?

This is often the hardest assignment for a business valuer or broker. Of course in looking at this situation, again we come back to the core question: "What does a buyer see?" If the buyer sees a real prospect for making a profit then the buyer will value the business. Otherwise you are only left with asset value. The other thing that a buyer is looking for is alternative opportunity. If it would cost the buyer say \$200,000 to take the business to its current position, then a buyer might prefer to buy this business in its current state rather than try to start something similar from scratch or invest in similar opportunities in the marketplace.

Often a buyer or valuer needs to value the intellectual property or other intangible that could give rise to profit in the future. Often it is purely technology that a valuer must assess and value. Use the checklist contained in the annexures in assessing the investment in technology that has so far failed to give a return on that investment.

Where we must rely on the projected income for our valuation, then the DCF method comes into its own.

How do you know your valuation is accurate.

Remember that a valuation is only an opinion. Opinions are just that – opinions. They are not facts. As long as you have followed the method properly, done market research and dealt with the numbers in an acceptable, you shouldn't be held liable if the business sells for more or less than the valuation. The existence of a difference between valuation and the price obtained is not uncommon, and as was observed by Wayne Lonergan, *The Valuation of Businesses, Shares and Other Equity*, Longman Professional, Melbourne, 1992, purchaser and vendor behaviour is a major influence on an actual sales price. Lonergan states at p 7:

"The fact that the price finally obtained for an asset differs from its valuation does not necessarily indicate that the valuation was wrong. In essence, differences occur between a valuation and the price finally obtained for an asset due to imperfections in the market and these differences do not necessarily reflect imperfections in the valuation process."

So if you get it wrong because of a quirk in the market, you are OK. If you get it wrong because of an error in your method or calculation, you could be held liable by your client.

How do you approach the valuation of assets. How do you know whether they are valued at “in situ” (going concern) status or market realisable” value?

Practice Standard 10 described in The Australian Property Institute, *Professional Practice 2002*, API, Canberra, 2001, pp 43-47, ("Practice Standard 10") refers to valuation methodology to be specifically applied to plant, machinery and equipment assets. Some general principles of relevance are:

- A profitable business with maintainable earnings for the foreseeable future, without any significant reduction in the scale of its operations, is valued on a "going concern" basis which incorporates the "value in use" or "market value for the existing use" of individual assets, including intellectual property, based on their contribution to the whole.
- The valuation of individual assets depends on whether the asset is classified as operational or non-operational.
- Operational assets are those utilised in the operation of the entity for continued use or service potential for the foreseeable future. Assets with unique features and hence limited marketability are specialised operational assets. Rarely sold in the market, except as part of the business they lack market evidence and so require a "depreciated replacement cost" valuation methodology where "cost" includes installation cost.
- Non-operational assets are those assets which are not integral to the operation of the entity and, as such, are surplus. A non-specialised operational asset is assessed by market comparison with reference to market evidence of assets considered suitable for the particular use.
- A business that is not profitable is valued on the basis of the value of the assets of the business. Valuation in this context involves auction realisation and orderly or private sale.

What is the difference between a “formal business valuation” and what a business broker or accountant might do in arriving at a price for a business?

Only professional business valuers should do formal valuations. At the outset, you must understand that in all cases the professional valuer, accountant or broker is accountable according to the level of expertise professed. The greater expertise you profess to have, the more accountable you will be. The valuer has a higher standard to live up to due to the fact that he is considered an expert. The broker or accountant has a different role. He is asked by a client to price a business for the purpose of sale. He still must take care, but wouldn't be often called to defend his theoretical approach unless he was wildly out with his estimation. In each case, the professional would be advised to support the valuation figure by reference to current market values if available. Don't offer

more than you are giving. If it is a valuation, say so. If it is a pricing, similarly say so. Be clear in representing your role.

How do you cultivate good business broker contacts?

- (a) Referrals
- (b) Accountants who do not compete in business sales
- (c) Support brokers by giving good advice on accounting issues
- (d) Share information on a confidential basis
- (e) Make contact with business agents through Professional Associations eg. Business Agents Chapter of the Real Estate Institute of NSW (REI) and Australian Institute of Business Brokers (AIBB)

Do Franchises sell for a larger multiple of profits than independent businesses?

Yes generally they do. Although franchising is not the absolute key to success in business, franchises will sell for more because of their systems and brands. The key is for a business to get the systems. If they have to purchase them from a franchisor and pay the extra royalties, then so be it. If they can build the systems themselves then they will get the reward of higher value per dollar of profit due to the reduced risk in purchasing such a business.

ANNEXURE B - ROI Converter

The following table will convert the return on investment to a multiple.

ROI Multiple

10	10.00
15	6.67
20	5.00
25	4.00
30	3.33
35	2.86
40	2.50
45	2.22
50	2.00
55	1.82
60	1.67
65	1.54
70	1.43
75	1.33
80	1.25
85	1.18
90	1.11
95	1.05
100	1.00
105	0.95
110	0.91