



# HOW BUSINESSES ARE VALUED?

A BASIC GUIDE FOR ENTREPRENEURS WISHING TO ASSESS VALUE OF THEIR  
BUSINESSES

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# 1. Introduction to Business Valuation

This presentation covers several different methods of business valuation. You should view the different methods as complementary which enable you to suggest a possible value region for business under consideration.

Business valuation is not an exact science. In a scenario where you intend to value your business for a possible sale, the final price paid will depend upon your bargaining skills and economic pressures on the parties involved.

Value of a business depends, among other factors, on exposure to risk. In order to understand how a business is valued, basic understanding of risk is essential, to which we will now focus our attention.

## 1.1 Business and Financial Risk

Every and any business is exposed to risk. It is important to distinguish between:

1. Business Risk
2. Financial Risk

**Business Risk.** This is the variability in the earnings of a business, which results from the uncertainties in the business environment. Among other factors, this risk reflects the industry within which the business operates.

**Financial Risk.** This represents the additional volatility caused by the firm's gearing structure i.e. the ratio of debt capital to equity. So if two businesses of roughly similar size and nature, operate in the same industry and in same economic environment, the business risk which they face would be similar. If however one of these businesses is financed fully by equity while the other is financed by a combination of equity and debt, they will be exposed to different levels of financial risk which in turn will have an impact on individual valuation.

## 1.2 How acquirers decide on the maximum price they would be willing to pay for your business ?

It is a key principle that the most an acquirer would ever pay for a target business is the increase in the value of the acquiring entity arising from the acquisition. Three key factors impact this assessment:

- 1. Standalone value** of the business being acquired. Calculated using any of the method(s) discussed in the presentation.
- 2. Potential Synergy Gains.** Where the combined entity has a higher value compared to the sum of individual entities as standalone businesses. i.e.  $1+1>2$ . This could occur due to factors such as increased economies of scale and scope, increased market share, reduce competition in the market, complimentary products and services etc.
- 3. Change in the Potential Risk Profile** of the combined entity. For instance, if an acquisition is of such size that it necessitates heavy borrowing in order to pay for the acquisition, this will change the capital structure and exposure to financial risk of the combined entity and this in turn, will effect <sup>4</sup> the value arising from acquisition.

## 2. Basic Valuation Methods

There are three basic methods of valuing a business:

- 1. Cash Based Methods.** The theoretical premise here is that the value of a business should be equal to the discounted value of the future cash flows.
- 2. Market Based Methods.** Here we assume that market (the capital market) is efficient, so we use market information (such as share price and P/E ratios) for valuing the business. Further assumption is that the market values businesses consistently so, if necessary, the value of one business can be used to find the value of another.
- 3. Assets Based Methods.** The assets of a business form the basis for its valuation. Asset based methods are difficult to apply to businesses with high levels of intangible assets. There are certain methods of trying to value intangible as well as tangible assets.

## 3. Cash Based Methods

### 3.1 THE FREE CASHFLOW METHOD

**Free cash flows** can be used to value a business. This value can be used:

1. To determine the price in a merger or acquisition
2. To identify a share price for the sale of a block of shares
3. To calculate the shareholders value added (SVA) by management from one period to another

**Free Cash flow:** Cash that is not retained and then re-invested in the business is called free cash flow. This in effect represents the cash flow that is available to all providers of capital of a business, whether these be debt holders or shareholders. This could be used to pay dividends, interest on debt or finance additional capital projects. Free cash flow is a very good measure of performance and an indicator of value.

**Free Cash Flows** of a business can be calculated as given on the next slide.

## 3.2 How Free Cash Flows are estimated

Net Operating Profit before Interest & Tax	X	For future years, expected profits are predicted based on the expected growth rates
Less Taxation	(X)	A relevant cash flow and therefore deducted from profit
Add Depreciation	X	Not a cash flow and therefore added back to profit
<b>Operating Profit</b>	<b>X</b>	
Less Investment:		
Investment to replace Non-Current Assets	(X)	Needed in order to continue operations at the current levels
Incremental Non-Current Assets Investment	(X)	Needed to sustain expected growth
Incremental Working Capital Investment	(X)	Needed to sustain expected growth
<b>Free Cash Flows</b>	<b>X</b>	
Less:		
Debt Interest Paid	(X)	
Debt Principal Paid	(X)	
Add:		
Cash Raised from Debt Issue	X	
<b>Free Cash Flow to Equity</b>	<b>X</b>	

### 3.3 How Free Cash Flows are used to determine the value of a business ?

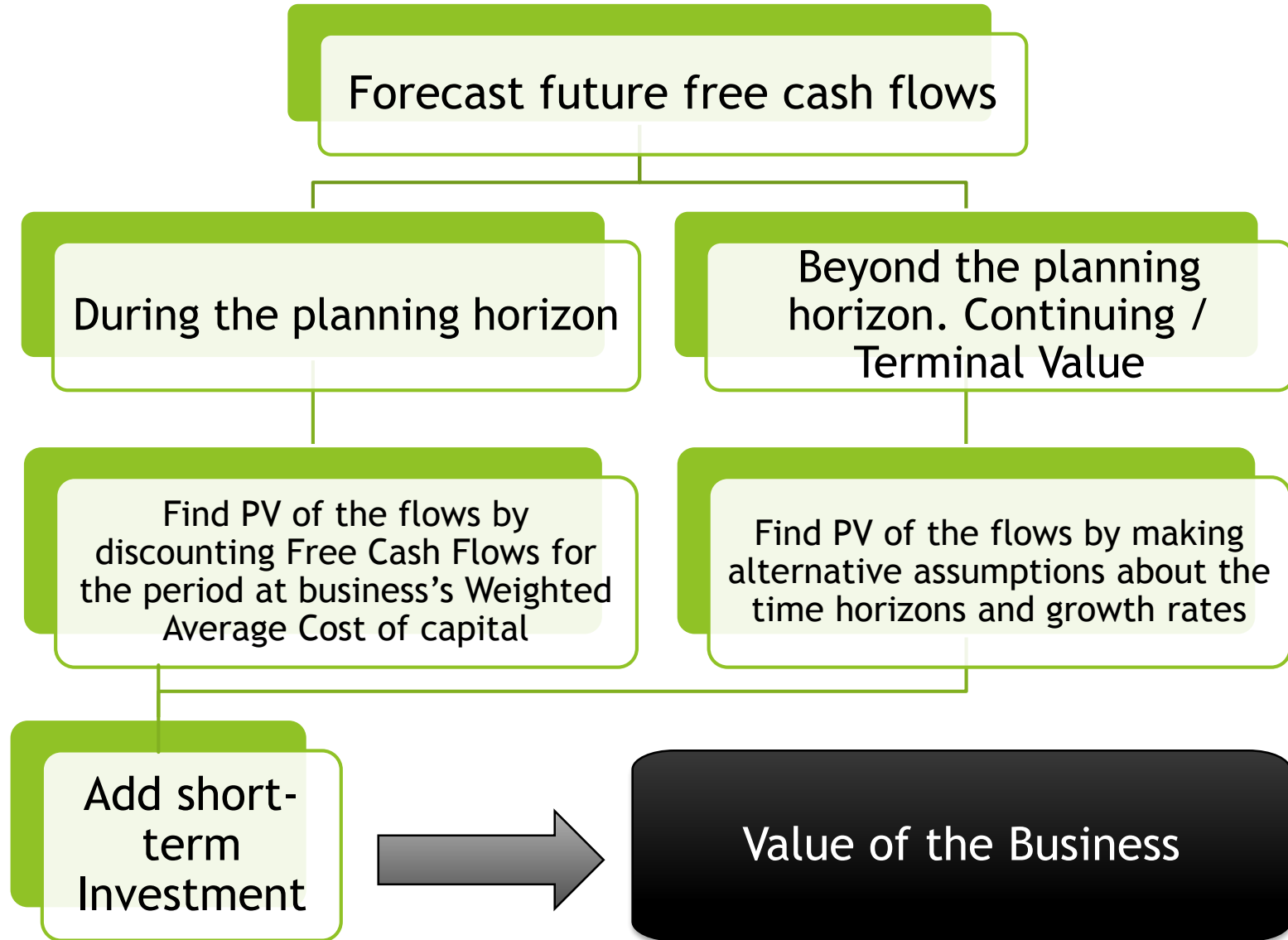
Technically, in order for the value of the business to be accurately determined, free cash flows for all future years should be estimated. However rather than attempting to predict the free cash flows for each future year, in practice a short cut method is applied. Future cash flows are divided into two time periods:

- 1. Those that occur during the planning horizon**
- 2. Those that occur after the planning horizon**

A short diagrammatical presentation of how free cash flows are used to determine the value of a business is given on next slide. It is beyond the scope and purpose of this presentation to demonstrate the technical side of how the discounting calculation are made?



### 3.4 Calculating the Value of a Business using Free Cash Flows



## 4. Cash Based Methods Continued

### 4.1 ECONOMIC VALUE ADDED (EVA)

EVA is an estimate of 'Economic Profit' i.e. the amount by which earnings of a business exceed the required minimum rate of return that investors could get from other securities of comparable risk.

#### **EVA is estimated as:**

(Net Operating Profit after tax) Minus (Invested Capital x Business's Weighted Average Cost of Capital)

In essence, EVA estimates the excess of returns which the business owner is getting by continuing with the business over what the owner could get if the same amount of investment was made elsewhere (where investment risk is similar)

## 4.2 How EVA is used to determine the value of a business ?

Economic Value Added (EVA) is calculated for the business. Present value (PV) of all future EVA streams is estimated, assuming that the earnings will continue in perpetuity.

Value of the business is then determined as given below:

**Business's Invested Capital + Present Value of all future  
EVA streams**

## 5. Cash Based Methods Continued

### 5.1 DIVIDEND VALUATION MODEL (DVM)

This method of business valuation has its basis on the theory that the value of a company's share should be equal to the present value of all the future dividends that the shareholder expects to receive on one share, discounted at the shareholder's required rate of return.

Extrapolating the same logic, the value of the entire business should therefore be equal to the present value of all the future dividends which all the shareholders expect to receive on **all** the shares of the business.

Relating this to the use of free cash flows to determine the value of the business, in essence it is the same concept. i.e. all the free cash flows will be eventually available to the providers of the finance in shape of either dividends or interest. The present value of all these possible cash flows represents the value of the business.

## 6. Market Based Methods

### 6.1 STOCK MARKET VALUE (Market Capitalization)

For a listed company, the stock market value of the shares is the starting point for the valuation process.

In a perfect efficient market, the market price of the shares would be fair at all times, and would accurately reflect all the information about a company. In reality, the markets are semi strong efficient i.e. share prices tend to reflect the publically available information.

**To understand this**, consider a scenario where information about some future highly profitable ventures which a company desires to undertake, is not made public. The market, reflecting only the publically available information will not factor this fact in pricing the share and the share will be undervalued.

**Alternatively**, if some adverse information affecting the performance of a company is withheld from public, the market will over price the share as it expects the company to make earnings more than what in reality is the case.

## 6.2 Control Premium

The market share price is a suitable method of valuation when selling or purchasing a minority stake in a business. However, a premium usually has to be paid above the current market price in order to acquire a controlling interest.

## 7. Market Based Methods Continued

### 7.1 THE PRICE-EARNINGS RATIOS (P/E) METHOD

The PRICE / EARNINGS method is a very simple method of valuation. It is the most commonly used method in practice.

**P/E Ratio** : P/E Ratio represents the number of times the earnings of a business which willing buyers are ready to pay as price. For instance, if Earnings Per Share (profit after tax / number of shares) of a business is 50 cents, and its share price is 250 cents, its price earnings ratio is  $(250/50)$  five. i.e. the buyers are willing to pay five times the earnings per share as a price for one share.

The value of a particular business is thus found by using Suitable Industry PE ratios as below:

**Value of a business = (Profit After Tax) x (Suitable Industry PE ratio)**

**Value of a share = (Earnings Per Share) x (Suitable Industry PE ratio)**

## 7.2 Further Details on the PE Model

**Profit Figure to be used:** The PAT must be maintainable earnings going forward. Some adjustments will be needed for changes anticipated as a result of business sale or future trading conditions.

### **Weaknesses of the model:**

1. It is applied to the accounting earnings which are more subjective than cash flows.
2. It assumes that the market is actually valuing earnings rather than some other aspects of the company's output i.e. dividends, earnings growth, risk etc.
3. It assumes that market does accurately values shares.



## 8. Market Based Methods Continued

### 8.1 MARKET TO BOOK RATIO

**Market value of the business = (Market to book ratio) x (Book value of assets which the business has)**

**Where**

**Market to Book Ratio = (Market Capitalization) / (Book Value of Assets for a comparator company or industry average)**

This method assumes a constant relationship between market value of the equity and the book value of a business. In practice this is rarely used unless the use of other more suitable methods is not possible / advisable.

# 9. Asset Based Methods

## 9.1 THE BASIC MODEL

The traditional asset based valuation method is to take as a starting point the value of the business's balance sheet assets less any liabilities. Asset values can be:

- 1. Book Value:** the book value of the assets can be easily found from the accounting records of the business. However, it is unlikely that the book value will be a reliable indicator of current market values.
- 2. Replacement Cost.** The buyer of a business will be interested in the replacement cost, since this represents the alternative cost of setting up a similar business from scratch.
- 3. Net Realizable Value:** The seller of a business will usually see the realizable value of the assets as the minimum acceptable price in negotiations

## 9.2 Problems with Basic Model and how these could be addressed ?

Any business is more than just sum of its constituent parts. In fact the value of the tangible assets in many businesses is minimal since much of the value comes from the intangible assets and goodwill (compare a firm of accountants with a mining company)

Often intangible assets making up a significant part of the real worth of a business, are formed by the staff of the business. Their skills, knowledge and creativity. Such assets are created by spending on areas such as R&D, advertising and marketing, training and staff development. This type of expenditure serves to enhance the underlying value of a business rather than assisting directly in earning current years profits.

A significant problem with the Basic Asset Valuation model is that the assets to be valued are taken to be those identified on the balance sheet. Where a firm has significant levels of intangible assets, basic asset valuation model would under value the business. Therefore a way of valuing these intangibles must be found.

In practice, this is achieved by using certain sophisticated methods such as **Calculated Intangible Value** and **Lev's Knowledge Method**. Detailed description of these methods are beyond the scope of this presentation.