IFC StockValuator Professional by Insight Financial Corporation Version 2A

Index

Section A: Running IFC Stockvaluator

Section B: How to Use the Data

Section C: Methods of Analyzing and Evaluating Stocks

Section D: Other Investment Issues

Section A
Running IFC Stockvaluator
Chapter 1. Introduction

Thank you for buying IFC Stockvaluator Professional. We hope that you will find this software to be as helpful as we have. We developed this software over several years to help us analyze stocks the way we wanted to. The original version(version 1A) was designed to run on Excel ver. 6. This version (version 2A was designed to run on Excel 2000 and may or may not work on earlier versions. Stockvaluator was designed by Dave Heinze, who is a Certified Management Accountant and a Canadian Investment Manager. This has some advantages and disadvantages. The main advantage is that it is relatively simple to use, assuming that you are fairly comfortable using a spreadsheet program, and it is designed from an analyst point of view, to do what the analyst wanted, not want a programmer thought was great programming. The disadvantage is that it may be a little more awkward to run than a stand alone program designed by a programmer. We think that it is better to be designed to help someone to analyze their stocks than to run perfectly. Nonetheless we have made every effort to make it as easy to use as possible.

We suggest that you save the original file we sent you in a safe spot on your hard drive, (or even better another drive somewhere else), then you can always open it and reset up everything if you have to.

The rest of this section is set up according to the files sheets and charts. It walks you through the entries that you need to make. It is very similar to the instructions on the basic instruction sheet, with a few more details. Section B talks in more detail about how to use the data. It also includes some helpful tips on how to calculate some of the items if you do not have it. This can be very helpful, as many services give their detail in a manner different than the way that best suits us. Section C discusses different methods to evaluate and pick stocks. For the most part it is a rewrite of past Financial Insight articles, just put in a different format. Section D includes some other miscellaneous information that we thought you might like to have.

Section A
Running IFC Stockvaluator
Chapter 2. Data Sheet (Formerly the Company Information Sheet)

Notice: Users of this software are cautioned that it is only a tool to aid you in your analysis. It does not replace professional advise or judgment. All information should be considered together, and judgment should be applied to consider its accuracy and completeness before any decisions are made. Insight Financial Corporation and all related parties are not to be considered responsible in any way for any decisions made while using or because of the analysis done using this software

The following instructions will walk you through the process of using this software:

1: Start Excel, and open the file IFCSTOCKVALUATORPRO2d.xls. Then save the file under a name specific to the stock that you plan to evaluate. We use the stocks ticker symbol with the extension .XLS, but you can use any name you like. The file opens on the Update page where you will find information on changes made since version 2a.

2: Using the worksheet and chart tabs at the bottom of the screen, click the Data tab. You may have to use the scrolling arrows to locate the sheet. When completing the data on this sheet, do not enter anything in the shaded cells, as they are automatic calculations.

3: Before you begin you will need a current financial paper and historical financial data. This historical data can be obtained from various services or the company's financial statements. You probably will not have all the data for all the years, so you will have to enter what you have.

4: Enter the Company data and current information in the top section of the sheet.

Note: For the following rows, you should note that years will be getting higher going from left to right. That is the most recent year will be the last column to the right. Many of the reporting services report the information in the other direction, so be sure to put the right year's data in the right column.

Also, if it is getting close to the company's year end, you might want to use the coming year end for the last year and project the current year's results based on the information you have. But that is a personal judgment call.

5: Enter the company's balance sheet data under the appropriate years.

6: Enter the company's income statement data under the appropriate years.

7: Enter the company's per share data under the appropriate years. You will be typing over numbers in some cases. This is because we inserted numbers so that the trend line charts would hold their formulas. This per share date is the most important data.

8: Some rows [including: Revenue per share, Cash flow per share, Net Earnings on operations, Share Price (High) and Share Price (low)], had amounts filled in for the last 5 years. This was so that the charts would hold trend lines. If you have not replaced all of these amounts with actual amounts, delete the ones that you did not replace now. This can be done by highlighting the cells, putting the mouse pointer over the highlighted cells, clicking the right mouse button and selecting "clear contents". Deleting the amounts that you did not replace is very important, as the old data would create incorrect analysis.

9: Clear the contents of all shaded cells that say either "DIV/0!" or "-". (See step 8 for instructions on clearing cells).

10: Once you are done, if there are any blank shaded cells, where you have the values from another source, you can enter them in the appropriate cell now.

11: Print the Page now.

Section A
Running IFC Stockvaluator
Chapter 3. Analysis Page

This is the main analysis page. However before you start it, you should jump ahead and print the charts pages. See chapters 5, 6, and 7 in this section. Once you have done that continue on with this chapter.

Once you have the Company Information page and the charts printed and on hand:

1: Using the worksheet and chart tabs at the bottom of the screen, click the Analysis tab.

2: Use the charts previously printed and the Company Info, enter the growth rates and R sq. values for Revenue per share, Cash flow per share, Earnings per share and Share price. These can be obtained from the formulas to the right of the charts. On Exp Chart 1, the top formula is Revenue per share, the middle one is Cash flow per share and the bottom one is for Earnings per share (EPS). On Exp Chart 2, the top formula is for share price and the bottom one is Earnings per share (EPS). (Actually EPS is Net Earnings on Operations on both charts as we consider this more meaningful.

When looking at the formula's on the exponential charts, you will see a formula Y = XXXe 0.xxx. The number after the e (to the power) is the return as a decimal. For example Y = 0.xxx e .05 indicates a 5 percent growth rate. On the standard linear charts, the formula would read 0.05X + XXX. Where the 0.05 would indicate 5% growth. Sometimes Excel gives unusual values for these though, so be careful to review the numbers and satisfy yourself that they are reasonable.

The closer the R sq. number is to 1 the better. 1.0 is a straight line. The lower the value, the less consistent the growth rate.

3: Now select an Earnings per share (EPS) start value, this will normally be current EPS, which is automatically inputted using the value from the top of the Data sheet. If the earnings appear unusually high or low, you will need to pick something more reflective of what you feel they should be if this were a normal year.

4: Now you can enter earnings growth rates for the next 5 years, 5 to 10 years and after ten years. We recommend the following. The rate for the next 5 years reflect current growth rates but never exceed 20% (0.2). The rate for 5 to 10 years be lower than the current rates. The rate for over 10 years be 3 or 4 percent, approximately the historic rate of inflation.

5: Now enter the discount rate. Our recommendations for different risk levels are below this cell on the Analysis sheet.

6: To find your estimated share value, go to cell I21

7. Now rate your valuation on a scale of A to E in cell I22.
Now answer yes or no for cells G23 to G26 and enter the quality of the industry in cell G27..

8: Review all the data to determine if the company is a quality company.

9: Add any comments to the comments section at the bottom of the sheet. Management, opportunities, outside recommendations, etc.

10: Print the Analysis sheet.

11: Now you can complete the Professional Analysis sheet.

Section A
Running IFC Stockvaluator
Chapter 4. Professional Analysis Page

This page repeats some of the information on the other pages plus helps you do some further analysis.

1: Most of the cells are shaded as the computer inputs them for you. How to interpret the information is discussed in Section B. However, there are some items that are not shaded, as you will have to complete them.

2: If you go to the Z-Score section on the lower half of the page, there are some items to complete.

3: First, you will need to input the retained earnings value.

4: Next, if there are Preferred shares, you will need to enter the number of shares and the price per share. If there are more than one class, but the prices are nearly the same, you could enter the total of all shares plus an average of the prices. If the prices differ very much, you will need to calculate the total preferred share capitalization and input the amount in the shaded box for Pref. MKT Cpt.

To calculate the market capitalization you multiply the total number of shares outstanding by the market price of the shares. This gives you the total market value of the shares, called "Market Capitalization." To get the total preferred share market capitalization, do this calculation for each class of shares, then add up the amounts.

5: Input the number of common shares. If there is more one class, as long as they all have similar (or near similar) values, enter the total for all the shares. Otherwise, you will have to calculate the total Common market capitalization as discussed for preferred shares, then input the value in the shaded "Common Mkt Cpt" box. Note: Starting with version 2A, the number of shares is automatically inputted with information from the Data sheet.

6: You can now use these sheets to evaluate the company and make decisions for your portfolio. Some boxes may show errors, that usually happens when the nature of the numbers are such that the calculations do not work or are not valid. In these cases, you may be wise not to consider these items in your evaluation. Also, if information is missing for a calculation like a Z-Score, you may want to avoid considering that information as it may be wrong or misleading. Unfortunately, you cannot always have everything. Actually, in investing, you can rarely have everything you want.

Section A
Running IFC Stockvaluator
Chapter 5. Log Charts 1A & 1B

These are exponential charts (graphs) showing sales per share (Chart 1A), cash flow per share and earnings per share (Chart1B) over a ten year period.

1: Using the worksheet and chart tabs at the bottom of the screen, click the log1A tab. If you get an error message saying "Some trend lines cannot be calculated from data containing negative or zero values", select OK, but for the items where there are negative values you will have to use chart 1 instead. (Chart 1 is a linear chart of the same items.)

Do the same for Log1B.

2: Print the chart. There should be formula boxes to the right of the chart, it may be necessary to move the key or some formula boxes with your mouse if any are covered.

Section A
Running IFC Stockvaluator
Chapter 6. Log Chart 2

This is an exponential chart (graph) showing average share price and earnings per share over a ten year period.

1: Using the worksheet and chart tabs at the bottom of the screen, click log2 tab. If you get an error message saying "Some trend lines cannot be calculated from data containing negative or zero values.", select OK, but for the items where there are negative values you will have to use chart 2 instead. (Chart 2 is a linear chart of the same items.)

2: Print the chart. There should be 2 formula boxes to the right of the chart, it may be necessary to move the key with your mouse if either box is covered.

Section A
Running IFC Stockvaluator
Chapter 7. Log Chart 3

This is a chart (graph) showing earnings, dividends and book value per share over a ten year period.

1: Using the worksheet and chart tabs at the bottom of the screen, click log2 tab. If you get an error message saying "Some trend lines cannot be calculated from data containing negative or zero values.", select OK.

2: Print the chart. There should be 3 formula boxes to the right of the chart, it may be necessary to move the key with your mouse if either box is covered.

Section A
Running IFC Stockvaluator
Chapter 8. Bar 1

This is a Bar chart (graph) showing earnings, dividends,book value and EPS credibility Factor per share over a ten year period.

1: Using the worksheet and chart tabs at the bottom of the screen, click Bar1.

2: Print the chart.

Section A
Running IFC Stockvaluator
Chapter 9. Bar 2

This is a Bar chart (graph) showing number of shares outstanding. Over a ten year period.

1: Using the worksheet and chart tabs at the bottom of the screen, click Bar2.

2: Print the chart.

Section A
Running IFC Stockvaluator
Chapter 10. Chart 1

This is a linear chart for the same items as in Log Charts 1a & b, sales per share, cash flow per share and earnings per share. If any of the items on Log Charts 1a & b had negative values, they cannot be charted exponentially. For those items, if applicable, use this chart instead.

Section A
Running IFC Stockvaluator
Chapter 11. Chart 2

This is a linear chart for the same items as in Log Chart 2, Average share price and earnings per share. If any of the items on Log Chart 2 had negative values, they cannot be charted exponentially. For those items, if applicable, use this chart instead. However, since share prices are not likely to be negative and Earnings per share are covered on chart 1, you are unlikely to need this chart, except to see a different type of scale.

Section A
Running IFC Stockvaluator
Chapter 12. Chart 3

This is a linear chart showing share price range over a ten year period.

1: Using the worksheet and chart tabs at the bottom of the screen, click the Chart 3 tab.

2. Print the chart. This chart shows each years high and low price.

Section B
How to use the Data
Chapter 1. Introduction

In this section we have tried to give you a little more information about how to use the various parts of Stockvaluator and what they mean. We have also included some tips to help you calculate the amounts when you are missing some information. Many services give selected financial data. Unfortunately, sometimes the data, does not include all the information we want. However, sometimes we can back into the numbers. To do this, complete the information that you have. Then, using what you entered plus what other information you have you may be able to calculate further balances. Then from that you may be able to calculate further balances, using the calculated amounts and the other information.

While we do comment about how to complete the sections here, our emphasis is on giving you more information, not on completing the sections, as that is covered in Section A.

Chances are you will not be able to complete all the rows etc., in these cases, use what you have. Also, some years may be missing, again, use what you have. When you are done each sheet, you can review the information that you do have noting the current numbers and the trends. Supplement this with other information from some of the financial services (see section C-2 below). Also, be careful of erroneous data. Due to varied definitions and approaches, it is easy to create wrong information. So be careful to use everything available to you to help you filter the true and meaningful information from what might be misleading.

Section B
Running IFC Stockvaluator
Chapter 2. Data Sheet

Top Section:

This section contains the current basic information about the company.

Company Name: Enter the company name here.

Industry: Enter the type of industry here. We break it down into 6 basic categories here; Multi-Sector, Financial, Utility, Consumer, Resource and Manufacturing. Of course you can use any categories you like.

Current Price: Enter this from your local newspaper or an internet quote service.

Indicated Dividend: Enter this from your local newspaper or an internet quote service.
Tip: If you do not have the dividend amount, but you have the current stock price and its yield, you can calculate the dividend by dividing the stock price by the yield. Remember that not all stocks pay a dividend, so this amount can be zero.

Type of share: Enter the type of share you are analyzing. Common A, B, nonvoting etc. Remember that this program is designed to analysis common shares, not preferred.

Spec. Industry: You can place a more specific type of industry here. For example Petroleum, Retail, etc.

1 Yr. High: Enter this from your favorite financial paper or an internet quote service.

1 Yr. Low: Enter this from your favorite financial paper or an internet quote service.

Risk Rating: We use the MPL ratings most of the time (See Section C-2 below). They are Very Conservative, Conservative, Average, Higher Risk and Speculative.

Y/E Month: Enter the company's fiscal year end month.

Current EPS: From your favorite financial paper, enter the company's current Earnings per share.
Tip: If you do not have the EPS, but you have the current share price and the current P/E ratio, you can calculate EPS by dividing the share price by the P/E ratio.
Ticker Syn.: Enter the stocks ticker symbol here.
Yield: Do not enter anything here, this should be calculated automatically. Yield is the dividend divided by share price. Yield tells you what the income stream is. For example, a yield of 1.5% means that if you invest at this price, and the company keeps paying the same dividend, you will receive an income stream of 1.5 percent on your investment. A high yield is normally good, but an exceptionally high Yield might be a danger sign.

Current P/E: Do not enter anything here, this should be calculated automatically. P/E is the share price divided by its Earnings per share. It is the multiple of share price to earnings. For example, a P/E of 10 means that share price is 10 times greater that the Earnings per share. Put another way, it would take ten years of current earnings to pay for the stock. A lower P/E is usually good. However, an exceptionally low P/E might be a danger sign.

MRI: Do not enter anything here, this should be calculated automatically. Marpep Risk Index. This is a ratio used by the Investor Reporter (see Section C-2 below). It divides the P/E Ratio by

the yield. Generally, the lower the MRI, the more secure the price. Investment Reporter suggests that over the years, they have found that shares with MRI's over 2 pose above average risk as they are generally expensive based on earnings or dividends.

Balance Sheet Section:

Years: The row above the Balance Sheet (row 8) automatically fills in the year numbers.

Current Assets: Current assets represent the assets that should be used in the business in the next year.
Tip: If you do not have the current assets, but you know the Current Liabilities and the Working Capital Amounts, you can calculate the Current Asset amounts by adding Current Liabilities to Working Capital.

Total Assets: This includes everything the company owns, Cash, Receivable, Inventories, Goodwill, Capital Assets (fixed assets like equipment, plants, etc.), etc.

Current Liabilities: The debts that the company pays within the next year.
Tip: You can calculate Current Liabilities by deducting Long Term Debt from Total Liabilities, or you can deduct Working Capital from Current Assets. Be careful here, there could be liabilities included in the total liabilities that are not current but that were not included in Long Term Debt, which would skewer your calculation.

Long Term Debt (total): The debts of the company that do not have to be paid in the next year. This value is automatically calculated starting with version 2A. However, if you have not entered values for total assets, current liabilities and shareholders equity, the calculated value will be incorrect and will need to be overwritten.
Tip: You can calculate Long term debt by deducting Current Liabilities from Total Liabilities.

Total Debt: Do not enter anything here, this row should be calculated automatically. The Total Debts of the company. The program calculates it by adding Current Liabilities to Long Term Debt. **Important:** If there is another debt not included in these rows, you should either add it to one of the above, or add it manually and enter the correct Total Liability numbers on this row. If this number is understated, all your debt ratios will indicate less debt than their really is.
Tip: You can calculate this by deducting the Shareholders Equity from the Total Assets. Be sure that the Shareholders Equity amount you use does include all equity items except debt, otherwise your calculation will overstate debt.

Shareholders Equity: The shareholders value in the company. Usually Retained Earnings (all past earnings that have not been distributed to the shareholders) plus Common Stock. Sometimes it includes other items like Contributed Surplus. This is what the shareholders have contributed (or invested) in the company (based on book values).
Tip: It can be calculated by deducting Total Liabilities from Total Assets.

How a Balance Sheet Works: There is no row for this, but we thought some further discussion on this might be useful. On a Balance Sheet, there are three sections, Assets, Liabilities and Owners Equity. The total of the Liabilities plus Owners Equity equals the Assets. Or in equation form:

Assets = Liabilities + Owners Equity

When you think it through, this simple equation makes a lot of sense. Assets are what the company owns. The other two items put together are how it got them. The company either borrowed (Liabilities), the owners contributed (Stock and Contributed Surplus portion of Shareholders equity) or the company made money and retained it in the company (Retained Earnings).

This is the basis of all accounting.

Income Statement Section:

Operating Revenue: This refers to the total sales of the company. A review of this row gives you an idea of the company's growth trend. Be careful though, maybe sales increased after a merger or new stock issue, meaning that Sales per share did not increase as much.

Total Interest Charges: If it is available to you, input it. This number is used to calculate Times Interest ratio below, which gives you an idea how well interest is covered by earnings.

Operating Profit: We use earnings before interest, taxes, depreciation and amortization (EBITDA) for this row. It tells what the company earned on its actual operations.

N.I. on Operations: Net Income on Operations is the company's earnings before extraordinary items, one time charges and income from discontinued operations. These can distort the current earnings. This line indicates what they are without these items.

Net Income: The net income of the company. If there are not any extraordinary or one time charges then it will equal the above line.

Share Information Section:

From the valuation point of view, this is the most important section.

Number of Shares O/S: This row is automatically calculated by dividing the Net Income by the Earnings per share. If you have more accuarate data you should override the calculations, otherwise accept them.

Incr. (Decr.) Shares O/S: This row is automatically calculated by deducting the previous years shares Outstanding from the current years shares outstanding.

Revenue per share: This is the revenue or sales per share. It is probably the best number for indicating growth trends.

Rev/share growth: Do not enter anything here, this row should be calculated automatically. This lines shows the change from year to year in Revenue per share.

Cash Flow per share: This is the cash flow per share per year. Cash flow is earnings less non-cash items like amortization (depreciation). It is normally a little higher than earnings, and can be a little more stable. Because it tends to be more stable than earnings, it can be a better trend indicator.

Cash Flow/share growth: Do not enter anything here, this row should be calculated automatically. This line shows the change from year to year in cash flow per share.

Net Earnings on Operations: Same as N.I. on Operations above (Net Income less one time charges) except on a per share basis. The charts all use this number for earnings as it is more relevant for charting trends than EPS (earnings per share after one time charges). If you do not have the values for this line, we recommend using Earnings per share.

Operational EPS Growth: Do not enter anything here, this row should be calculated automatically. This line shows the change from year to year in Operational Net Earnings on Operations per share.

Earnings Per Share: Earnings per share. What each shareholder made on each share. Possibly the single most important number over the long term.

Dividend Per Share: The amount of profit paid out to the shareholders per share each year. Pay a lot of attention to the trend here. A declining or sudden reduction drop in this amount can be a danger signal. Companies try not to decrease this payment, so a reduction may signal that they have concerns about the future. Of course there may be a satisfactory reason too, like a future expansion plan. So find out the reason, then decide how you feel about it. If in doubt, remember there are always thousands of other companies to choose from.

Dividend Payout %: Do not enter anything here, this row should be calculated automatically. This line equals Dividend divided by Net Earnings on operations per share. It indicates how much of the profits are paid out to the shareholders.

Share Price (High): The highest price the share sold for in a given year.

Share Price (Low): The lowest price the share sold for in a given year.

Share Price (Average): Do not enter anything here, this row should be calculated automatically. This line is calculated by adding Share Price (High) to Share Price (Low) and dividing it by 2. It is simply the average.

Book Value per Share: This is the value of each share based on the company's book values. In theory, it is the liquidation value of each share, or what each share would be worth if the company was dismantled, all the assets sold, the liabilities paid and the balance distributed to the shareholders. In practice it may or may not be close. Book Value per share equals shareholder equity (after removing preferred shares) divided by the number of shares outstanding.

Ratio & Analysis Section:

All the amounts for this section are automatic calculations.

Current Ratio: Today this is normally called Working Capital ratio. It equals Current Assets divided by Current Liabilities. This ratio indicates how well positioned the company is to pay its bills. A company with a low ratio could run into a cash flow problem, if they do not make sufficient arrangements to cover them. Traditional wisdom says that a ratio of 2 or more is good.

Equity as % of Assets: This ratio divides Shareholders Equity by Total Assets expressed as a percentage. It gives the percent of assets made up by the Owners Equity. This is discussed in greater detail in section C-3 under reasonable levels of debt.

Interest Coverage X's: Interest Coverage Times, equals Total Interest Charges plus N.I. on Operations divided by Total interest Charges. It indicates how many times income is greater than interest costs, or how well income covers interest. A high number indicates that the company can easily cover its interest costs. Traditional wisdom says that a ratio of 3 or more is good.

EPS Credibility Factor: This is a new calculation that we are currently testing but have included in version 2A. This line equals current Book Value Per Share minus previous period Book Value per Share plus Earnings Per Share Minus Dividends per Share plus an adjustment factor for shares issued or redeemed. While this is not the most accurate calculation, especially the

adjustment factor, in theory this number should equal zero. Use this number as a guide to confirm the credibility of the companies Earnings Per Share (EPS). A positive number might indicate that EPS are understated while a negative number might indicate that EPS are overstated. A small number is probably not important, however, a significant number in relation to EPS, especially if it happens regularly, might indicate an accounting issue, and therefore further investigation may be warranted. Other likely items that may effect this number include management options and prior period adjustments. These issues could be a positive factor, a significant concern or not really important. This is one of the many judgment calls that you must make. If all the columns are not completed, (e.g. you have fewer than 10 years of data, then the EPS Credibility Factor for the first year will be incorrect and that years value should be ignored.

We must emphasize that Earnings Credibility Factor is still an experimental calculation which is meant to flag possible concerns that may need more investigation. However, we do not yet have enough experience with it to determine its reliability.

Operating Profit Margin: Equals Operating Profit divided by Operating Revenue expressed as a percentage. This indicates how well revenue is turned into profit. The higher the percent (profit margin, or margin) the more efficiently revenues are turned into profits. Companies with high margins can increase profits significantly with a small increase in revenue, where ones with small margins must increase revenue much more to get a significant increase in profit. When reviewing this number, be sure to compare it to the other companies in the same industry. Some industries operate on high margins, where others have low margins but rely on high volumes to create the profits. Comparing your company to the industry will tell you a lot about its efficiency for the business it is in.

Return on Assets: Equals Net Income divided by Total Assets expressed as a percentage. It is a good measure of how well management is utilizing its assets. The higher the return, the better the assets are being used. If the ratio is very low, one might question if it might not be better to dismantle the company and invest the proceeds.

N.I. on Invested Capital: Net Income on Invested Capital equals N.I. on Operations divided by Shareholders equity. This gives you an idea how well the managers of the company are managing their resources. The higher the better. This is further discussed in Section C-3 under Return on Equity.

High PE: High Price Earnings ratio is equal to the Share Price (High) divided by Net Earnings on Operations per Share. A review of this row will give you an idea what the market considers a high ratio. If the current PE is near what is normally a high PE ratio, the price is not likely to go up much until earnings catch up. But it might drop.

Low PE: Low Price Earnings ratio is equal to the Share Price (Low) divided by Net Earnings on Operations per Share. A review of this row will give you an idea what the market considers a low ratio. If the PE is near the low trend there is likely a lot of room for price growth.

Price/Sales: Equals Share Price (Average) divided by Revenue per Share. This is a favorite ratio of Patrick McKeough, author of The Successful Investor (see Section C-2 for his address). This ratio tells you how many times share price is greater than sales. A lower ratio is normally good, but a very low ratio can be a danger sign. Apparently Ken Fisher recommended that 0.75 is preferable and that this ratio should never go over 3.0. However, we are not in a position to say either way. Also, wholesalers need a lower ratio than many other businesses.

Price/Cash Flow: Equals Cash Flow per Share divided by Revenue per Share. Often used to evaluate Resource companies. Similar to PE, except that it uses Cash Flow instead.

Avg. EPS last 3 Years: A simple average of the last three years Earnings on Operations per share.

High PE Avg 5 yr: A simple average of the last 5 years High PE.

Low PE Avg 5 yr: A simple average of the last 5 years Low PE.

Section B
Running IFC Stockvaluator
Chapter 3. Analysis Page

Growth Rates Section

By completing the Revenue per Share, Cash Flow / Share, Earnings on Operations per Share and Share price information you are getting a feel for where the company is going. Avg. High and Low P/E ratios from the bottom of The Company Information Sheet are provided as further information. The rest requires a lot of judgment.

By reviewing the Company Information page, the charts and any estimates from your investment services, you can determine where you think EPS (Earnings per Share) are now or would be if this were a normal year. For example, if you are in the middle of a short down period for the industry, or the company had a bad year due to restructuring, you might determine that this years EPS are a one time thing, and that if this were a normal year they would be higher. Or maybe, there was a jump that makes this year unreasonably high. After considering all this, you have to come up with a reasonable start value.

Then you must project where earnings are going in the future. To do this review analysts predictions, the Company Information page charts and any other information you have. See the discussion for this in A-3.

Then you can determine a reasonable Discount value.

This section is all that is required to determine a value for the stock. However, it is very judgmental and requires that you review all the information you have available to you. The calculation is very scientific, that is what the computer does, but it relies on the projections and judgment calls that you make, and how good or bad the calculated value is depends on the quality of the numbers you input.

We often try making several assumptions, to see how they effect our price. Then we go with what we consider to be best, but we keep the other values in mind. For example, you might value a stock to be worth between $25 and $40 dollars but believe it to be worth $32. If it currently trades around $25, you might consider this a good price and buy, if it trades over $32, you might wait, or buy another share with currently available money. Again it is a judgment call, but hopefully this analysis will improve your judgment. Another reason to only buy high quality companies (see Section C-3).

Current Information

Some more information to help in your review.

Current Ratio, Equity % Assets, Share Price, Book Value, 3 Yr. Avg. EPS and Cash Flow per Share are covered in Section B-2.

Price/Book Value: Shows price as a percent of the company's book value. Companies where the price is close to Book Value may be less volatile, especially during down turns. If price is less than book value, the company might become a takeover candidate, as a competitor might believe that it is cheaper to get new assets by taking over this company than by buying them.

Price/3 yr avg. EPS: Gives you an idea of how high the price is compared to a recent average of EPS.

One Dollar Premise

This section requires that you have data for at least 5 years, if you do not, ignore this section. The section completes itself. The only place that we have seen this is in the book, "The Warren Buffet Way". The author indicates that, Warren Buffet believes that, over a long time period, if management is looking out for the shareholders best interest, then the value of their shares should grow by at least as much as the earnings retained in the business. A Value of 1 or more in the last cell means that the test is met.

The Stock Value Calculation

Starting at the top on the right side of the sheet, is the stock value calculation. The top item "Current Share Price" is just brought forward from The Company Information Sheet for your information, it is not part of the calculation.

This section is automatic. It calculates the EPS for each of the next 10 years, then calculates the present values, and totals them. Then it calculates the value of all future ESP (ten years to infinity) in ten years, then discounts that back to current dollars. Then it adds this to the present values to get an estimated share price. The result is the present value of all future earnings per share, which is what you are buying when you buy a stock.

Below this are some questions to answer. Review the data on the Company Information Page to answer:

1. Quality of Valuation (A-E): Rate your valuation. This is strictly a judgement call.
2. ROI on Equity Stability: Are returns on equity stable? Yes , no, fairly, etc.
3. Earnings Stability: How is the track record? Are profits stable? Yes, No, somewhat, etc.
4. Is there a stable dividend?
5. One Dollar premis: Assuming you had at least 5 years data, this is calculated below, and the value is placed in the cell to the right on this question. If the value is one or more, answer yes.
6. Quality of Industry. Rate the industry the company is in. Is it competitive, cyclical, growing, shrinking, political etc. All these things will effect your rating. If it is a bad industry then maybe you should pass on the company even if it is a great one. Again, another judgement call.

The more positive answers you have here, the higher the quality the company. We like to buy companies with all good answers, but we do not always do this. You have to decide how you feel, based on your overall portfolio and where this company fits into it.

Some Further Information

Below the last part, is some more information brought forward.

Section B
Running IFC Stockvaluator
Chapter 4. Professional Analysis Page

The top half of this page is just information brought forward to help you see it a different way. However there are 3 other sections, MRI/MGI, Growth Rates and Z-Score.

MRI/MGI

MRI or Marpep Risk Index: This is a ratio used by the Investor Reporter (see section C-2 below). It divides the P/E Ratio by the yield. Generally, the lower the MRI, the more secure the price. Investment Reporter suggests that over the years, they have found that shares with MRI's over 2 pose above average risk as they are generally expensive based on earnings or dividends.

MGI or Marpep Growth Index: This is a ratio used by the Investor Reporter (see section C-2 below). Be careful using this number. The number calculated here will only be correct if there is a proper Geometric mean calculated for EPS growth in cell F18. This number is the stocks compound growth rate over its current PE. A value above 1 indicates that the stock is undervalued, based on its earnings growth rate.

The section to the right of these numbers calculates EPS growth for 3 years then calculates a geometric mean.

Growth Rates

This section calculates growth rates for Sales per share, Cash Flow per share and Earnings per share. It calculates both 4 year and 9 year rates using a simple average, then a geometric average. The geometric is better, as it allows for compounding, however, it will not work if there is not growth every year. That is because it can not work with negative growth. So more often than not, these will not be calculated. Also, they will only work if you have at least 5 years data for the 4 years rate and all 10 years data for the 9 years data.

Z-Score

The Z-score is a model developed in the 1960's by Mr. Altman. It is based on a weighted sum of financial ratios. It measures liquidity and performance. It is calculated by totaling the following.

- Working Capital (current assets - current liabilities) divided by Total assets times 1.2
- Retained Earnings divided by Total Assets times 1.4
- Operating Income divided by Total Assets times 3.3
- Stock Value (Market Capitalization) divided Total Liabilities times 0.6
- Sales divided by Total Assets

A value of less than 1.8 indicates that the company is in difficulty, a value over 3.0 indicates a healthy company. The in between is gray.

Be careful when you use this. You must have all the data, or your value will be incorrect. Also, consider the nature of the company and its industry. The results may not mean the same for companies in the financial and utility sectors, as they often carry much more debt, due to the nature of the business. For example, money is a commodity for a bank. They borrow from one party, to loan to another. Their margin is the difference, and often very small. So they must rely on high volumes, which requires large amounts of debt.

Section C
Methods of Analyzing and Evaluating Stocks
Chapter 1. Introduction

This section discusses methods of analyzing and evaluating stocks. It starts with a discussion on where to get information and suggestions on how to locate good stocks. Then it moves on to discuss what to look for to determine the quality of a company. Next we move into a discussion on Value and Growth selection, the approaches that we prefer. Then we get on with price evaluation methods, discussing the more common empirical methods and onto intrinsic approaches, and how we do it using this software.

Section C
Methods of Analyzing and Evaluating Stocks
Chapter 2. Obtaining Information

In order to analyze companies, you will need to obtain information on them. The following summarizes some popular sources of information, as well as some good sources for identifying potential companies.

Company's Annual Report: Once you find an interesting company, the first place to look for information is the company's Annual Report. Annual reports can be obtained by phoning or writing the company's Investor or Public relations department.

Reading the annual report will give you an overview of the company. Also, the financial statement portion will contain much of the information that you will need to analyze the company's financial position. A word of caution, when reviewing the non-financial portion (e.g., Presidents message & Future Prospects, etc.), remember, this is management's report to the shareholders, it can be slanted to make them look good.

Investment Letters: There are many services that report on companies and they will often make recommendations. Usually, they will give commentary on what the company is doing and some financial analysis. They can be a means of finding good companies to research as well as a source of ongoing information. These letters usually have a cost, but the independent point of view might be worth it.

The following are some that we currently like. Hopefully we will still like these in a few years, but things do change:

The Successful Investor, by Patrick McKeough.
We view Patrick as one of Canada's best financial writers. He was the editor for The Investment Reporter, until a few years ago when he started The Successful Investor. This letter comes out monthly, however, he has a hot-line that is updated weekly. One neat feature is that if a subscriber gives him their email address, he will email them the text for his weekly hot-line updates. We consider this to be a very innovative approach, and wonder when our other favorite services will figure out about the internet.

The Successful Investor's address is:
Ste. 977,
6021 Younge St.
Toronto, ON.
M2M 3W2

phone: 1-888-292-0296
email: mckeough@idirect.com
web site: www.thesuccessfulinvestor.com
note: This site *might* only open using Internet Explorer.

Investment Reporter

MPL Communications Inc.
133 Richmond St. West,
Toronto, ON
M5H 3M8

(416) 869-1177

www.adviceforinvestors.com

Brokerage House Letters: Most brokerage houses publish letters and distribute them to their customers. They will usually provide market outlooks and recommendations on different companies.

Stockbrokers: Most brokers will provide their clients with information and recommendations. Also, they usually have a lot of research material at their fingertips. All you have to do is ask.

Investment Services: Here we are referring to services that publish financial information and analysis on different companies. These are especially useful for detailed analysis. They usually provide a page or more on each of the companies they cover (updated one or more times a year). The information will provide current and past financial data, ratio analysis, some commentary, and usually the company's address, etc. Before investing, you owe it to yourself to review the reports of one of these services.

Some examples of these are The Blue Book of CBS Stock Reports (by MPL Communications Inc.), Value Line Service, Standard and Poors and MSN Money Central.

Financial Press: Articles in the press will help you stay informed. Two of the most popular in Canada are the Globe and Mail's Report on Business, and the Financial Post. Of course there are many other services, including the business section of your local newspaper.

A word of caution; these papers will help you to follow your companies. However, they are newspapers, and you may be tempted to react to the stories. If you do this too much, you might succeed in making your broker wealthy, but you may not be acting in your own best interest. Remember, the rest of the market is reading the same stories, (usually before you), and markets tend to over react. If you must react, keep in mind that many successful investors have said, "Buy on Bad news, and sell on Good."

Your Own Experience: If you have had dealings with the company, listen to your gut. Peter Lynch & Warren Buffet (two of America's most successful investors) both make references to buying companies that you understand. This is sound advice, while you do not have to be an expert in the field, you should know and have a general understanding of what the company does. Then pay attention to any exposure you get, including press, advertising, your own dealings or even your friend's experiences. If you do not like what you see, sell your shares and find a company you do like. After all, how can you own a company that you do not like?

Public Library: Most of the things listed above, plus a lot more are available at your Public Library, in the Business department. This may be the best place to start.

Section C
Methods of Analyzing and Evaluating Stocks
Chapter 3. Picking Quality Companies

There are a number of factors to consider when looking for quality companies. However, if we were to break it down into a few categories; we would probably say, reasonable levels of debt, good management and having goods or services that can be sold at a profit.

Having two out of three of these is not good enough. Having too much debt makes a company vulnerable. Poor management can kill even the best company, and if you do not have something profitable to sell, then you can not make money.

Reasonable Levels of Debt: This is a critical factor, as too much debt can put a company out of business. In a recession, companies with excessive debt can find themselves unable to meet their obligations, while in a good economy, growth can be restricted.

There are many formulas for measuring debt, but we will discuss two that we like. One measures the level of current or short term debt, while the other deals with total debt.

When evaluating current debt, we are really trying to satisfy ourselves that the company can meet its current obligations. To measure that, we use the Working Capital Ratio, (often referred to as the current ratio). This ratio is equal to current assets divided by current liabilities, both these numbers can be found on a company's Balance Sheet, in the company's annual report.

Traditional wisdom says that this ratio should be equal to two or more. While we like to see this, if total debt and other factors are reasonable, we do not usually get nervous until it falls below one. But that is our view, not an accepted benchmark.

There are several ratios used to measure total debt. We prefer total debt divided by total equity. Both these numbers can be found on a company's Balance Sheet. This tells you how much the company's creditors have contributed to the company versus the shareholders through the purchase of stock and leaving profits in the company.

For instance, if this ratio is 50% (or 0.5), then it means that half of the equity comes from borrowing and half from the shareholders (either directly or indirectly). If it is 25% (0.25), it means that one quarter (25%) is from borrowing and three quarters (75%) is from shareholders.

The lower this ratio, the more secure the company. You will hear different rules of thumb for this one. The material for the "Canadian Securities Course" put on by the Canadian Securities Institute suggest this ratio should not be over one third, or 33%. While this is nice, we believe that it is not realistic. We think, and we suspect that most experts would agree that debt levels up to one half or 50% are reasonable, in most cases.

Debt of Utilities and Financial Institutions: We should point out that if you apply the above to utilities or financial institutions, you might never buy one, even though they are considered to be in fairly low risk industries.

When looking at utilities, you may be prepared to live with more debt, as their monopoly positions often guarantees them a steady income. You should keep this in mind, while asking yourself, will the monopoly position continue and what if it does not.

Financial institutions nearly always have very high debt ratios. Debt to total equity is often over 90% and sometimes nearly 100%. This is because money is their product or commodity. They are in the business of borrowing money, then investing and reloaning it. To do this profitably, you must have very high debt levels.

Good Management: This can be evaluated a number of ways, some qualitative, and some quantitative.

First we will discuss the qualitative. This entails reading the financial news, watching the news and reading reports from investment services. It also includes paying attention to your every day dealings with the company, both personally and when applicable, professionally. If you like what you are seeing, this is good, if not, look for another company.

The quantitative includes calculating some ratios and trends to determine if management has been successful at turning a profit and what they have done with the profits.

Return on Equity: This is a popular ratio, used to determine how effective management is at earning a profit on the owner's equity. It is calculated by dividing Net Income by Shareholders Equity. One premise, is that, if they cannot get a higher return than can be earned on a low risk investment like Government Bonds, then why be in business. We find that most analysts like to see this ratio over 10%, and anything over 15% is considered excellent.

Do not forget to look at the trend for the last five or more years, as this may tell you more than just the current numbers.

One Dollar Premise: The only place that we have seen this is in the book, "The Warren Buffet Way". The author indicates that, Warren Buffet believes that, over a long time period, if management is looking out for the shareholders best interest, then the value of their shares should grow by at least as much as the earnings retained in the business.

The way we apply this is by calculating the amount of increase in market price per share over a five to ten year period. Then we divide this by income retained over the same period. We calculate the amount retained by adding all the earnings per share, less all dividends per share (and per share value of any share repurchase if applicable). If the result is one or more, we presume that management has acted reasonably.

Ability To Earn Profit: This too has a qualitative and a quantitative side. On the qualitative side, you need to know something about the business. What does the company sell, is there likely to be a growing or shrinking market. Is the product or service likely to be replaced by newer technology, if so, by who, the company or a competitor? How Competitive is the business, can the company hold or increase its market share.

These are the kinds of questions you should ask yourself. You do not need to be an expert, presumably that is the job of the company's management, whom you as a shareholder have hired to work for you. However, the more you know about these things, the better a position you will be in to make a good decision.

On the quantitative side, there are ratios and trends that you can look at. The following are some of the ones that we like. These numbers are reported by many investment services.

Gross Profit Margin: This is mainly applicable to businesses that sell products. It is gross profit divided by the total sales. This ratio, or operating profit margin, will give you an idea how much margin is available to cover other costs and create profits. Here you should look at the trend over the last few years. Is this percentage growing, shrinking or fairly constant? If it is shrinking, it may mean that the company is going to have a hard time producing profits in the future.

Trend of Sales per share: This will tell you if the sales per share are growing. Total sales tells you if the company is growing. However, total sales growth might only be due to things like mergers, etc. For instance, if sales double but the number of shares outstanding also doubles, your investment has not grown, just management's empire. However, if sales *per share* are growing, then you stand to see your investment grow. In general, a steady growth trend is good, a steady decline is bad, and erratic behavior may be cause for concern.

Trend of Cash flow per share: Cash flow per share is equal to earnings per share less non cash expenses like amortization (depreciation). The numbers here should be positive and increasing.

Trend of Earnings per share: This is the amount of profit the company made divided by the number of shares. In theory, this is what a share earned during the year. Here again we like to see positive amounts and a steady growth trend. By its nature, this number will fluctuate more than the last two. We do not become concerned if there is one loss year over a five year period, but we do get nervous if there are two or more.

Trend of Dividends per share: This tells something about management's plans and expectations. We like to see consistent or growing dividends. A decrease in the dividend rate may be a signal of rough waters ahead. However, if the company is growing rapidly, and does not have a history of paying dividends, it is not necessarily cause for concern. Many growing companies use earnings as a means to finance growth. This is okay, however, companies that do not pay a dividend should be considered higher risk than if they had paid a dividend.

A Lot of Information: The above are a number of the things we look for in a quality company. The more positives the better. However, we do not find many companies with only positive factors. Most have some good, some average and the odd not so good. That is probably all you can hope for. We look for the best combinations we can find, and try to avoid danger signs. By doing this we hope to build a sound portfolio of shares, which over the long haul will weather the bad times and thrive in the good.

Section C
Methods of Analyzing and Evaluating Stocks
Chapter 4. Value and Growth Share Selection

A lot of attention has been paid to these two forms of share selection. Many investors consider themselves to be value investors, while others are looking for growth.

Normally, a value investor is considered to be someone who tries to find shares that are undervalued, and then buys them for a bargain. The reason for the share being undervalued could be an industry that is not currently popular, some recent bad news or just market neglect. The investor believes that due to this current unpopularity, the shares can be bought at a bargain, and one day their true value will be realized. The most successful value investors are prepared to wait years for this true value to be realized, as long as they believe that the economic value is still there.

Growth investors are investor's who are looking for shares of companies that are growing and expanding. Their belief is that the current price is not that important, as by expanding and growing, these companies are constantly increasing their economic value, which will translate into increase share price. It is often their position that if you wait for a lower price, you may miss the ride, because, as the companies grow, so will their price. Consequently, today's price which may seem high, will be considered a bargain when compared to tomorrow's. The most successful of these investors are also prepared to hold onto a share for a long time. After all, as long as the company is growing, its value should continue to go up.

The above two styles are the ones that we prefer. They both have merit, and when exercised correctly, they also emphasize quality.

Now it may sound like you can use one of these approaches, or the other, but not the two together. Actually, we suspect that many investors believe this, but we do not. We think that quality shares can be chosen for a number of reasons, one being growth, but once you have selected a quality share, there is no need to run right out and buy it. The next step should be to value it, to see if it can be purchased for a reasonable price. After all, market hype can cause even the best companies to be overvalued. This is true of all companies, especially fast growing ones.

We should point out that this does not mean buying the share at the best price, or the bottom, it means satisfying yourself that the current price is economically justified. If you wait for the bottom, you will miss it nearly every time, or may never invest, as a better price may be coming. This could cause you to miss most of the best opportunities. On the other hand, if you value a share, then you will have the comfort of knowing that you have purchased some economic value, which should eventually be realized. You will not always be right, and your evaluations should be redone fairly regularly, but on the whole, this should add significant stability to your portfolio. Also, when your shares do drop, it will be easier to hold on to them and sleep at night, knowing that your investments still hold economic value.

Finally, from a purchasing point of view, valuing the shares, makes the decision easier. Presumably, you will be adding to your portfolio over time, so when you have new money to invest, you can review the companies in which you would like to increase your holdings, and add to the ones that are well priced.

When it comes to pricing, there are two main approaches. One uses empirical methods that use market prices to calculate ratios. The ratios are then used to determine the reasonableness of the share's price. The other calculates the intrinsic value, by determining the present value of the future cash flows generated by the share. Both of these approaches have merit, and are discussed in the next two chapters.

Section C
Methods of Analyzing and Evaluating Stocks
Chapter 5. Valuing Stocks Using Empirical Methods

There are two common ways to valuing stocks; using empirical methods or the Intrinsic value approach. In this chapter we will discuss the empirical methods. The empirical methods use market prices to calculate ratios, then uses these ratios to evaluate price.

This is probably the most common approach. Many of the ratios are published in various financial publications, they are fairly easy to understand and usually easy to apply. Also, if you apply them carefully, they can be very effective.

The following are of some of the more popular ratios.

Price earnings ratio: Often referred to as P/E. It is probably the most popular ratio. It is calculated by dividing the share price by the earnings per share. If the share price is very high, then this ratio will be high. If it is low, then the ratio will be low. Normally, we would expect a stock's P/E to be between ten and twenty. However, there are several factors to consider. First, a growth stock would normally have a higher P/E, as investors are buying future earnings, and they expect these earnings to go up. Therefore, the higher the expected growth rate, the higher you would expect the P/E to be. On the other hand, you should also consider risk. The riskier a share, the lower the price that you would be prepared to pay.

The biggest weakness of P/E ratios is that in the short term, earnings fluctuate. So you want to be certain that you are dealing with a realistic earnings per share, and not an amount that is temporarily distorted. Recently, the TSE 300 gave an example of this. In January 1994, the TSE 300 was around 4400, and it had an average P/E of over 100. On January 30, 1996, it closed at 4968, yet its average P/E was only 14. As you can see, prices rose about 13%, so the P/E should have gone up, but it dropped from over 100 to 14. The reason, is that in 1993, corporate earnings were very low, so temporarily, share prices appeared to be overvalued.

Price to cash flow per share: This is another popular ratio, especially for the resource industries. It is calculated by dividing the share price by the cash flow per share. Cash flow is equal to earnings per share less non cash expenses like depreciation and depletion. Many analysts prefer this ratio, as they find it to be more reliable than P/E.

What is a realistic price to cash flow per share ratio, depends on the industry and the analyst. The Investment Reporter recently stated that for resource companies they like to see this ratio under five.

Price to sales per share: This is a less used ratio, however, it is probably one of the most reliable. While earnings can fluctuate wildly, sales tend to be much more stable. This ratio is calculated by dividing the company's share price by its sales per share. The major drawback of this ratio is that it ignores costs. A company can have great sales per share, and be losing money hand over fist.

As with the others, what is reasonable depends on a variety of factors. We found one reference that says less than 0.75 is preferable, and anything over three is too high. Unfortunately, we are not sure where this reference came from.

Dividend yield: This is probably the second most popular ratio. It is calculated by dividing dividends per share by the share price. It tells you what rate of return you will be getting from the dividend stream. While this is an important ratio, especially for investors looking for an income stream, it really tells you little about the reasonableness of the share price. Companies that pay higher dividends are usually, but not always, more stable investments.

Price to book value: Many value investors rely heavily on this ratio. It is calculated by dividing the share price by the book value of the shares. One theory is that if you can buy a company for close to its book value, you have a bargain. At the very least, the company is worth this value, and that makes it a takeover target. This is often true, however, only if there is another company that wants to buy them. On the other hand, a company may be worth far more than its book value. So, while you should consider this ratio, it too must be put into perspective.

The next obvious question is, which ratios to apply. That is a matter of personal investment style. However, as you can see, at different times, different ones are appropriate. Our recommendation is that you look at as many as you can, and pay attention to other information, which will help you determine which ones are really meaningful.

While we use these ratios in our day to day reviews, and included them in our analysis, we prefer to value shares using an intrinsic approach of our own. We feel that our approach allows us to consider more variables and leaves more room for judgment. However, it is only as good as the judgment applied, it requires several years data and is complex to apply. We designed this computer program to help us implement it. Our approach, is not for everyone. It is discussed in the next chapter.

Section C
Methods of Analyzing and Evaluating Stocks
Chapter 6. Valuing Stocks Using an Intrinsic Value Approach

The intrinsic value approach is based on the theory that the true value of a share, or for that matter, any investment is the present value of all the cash flows that it will generate.

On the surface, this is fairly simple:
1. You determine what the cash flows will be.
2. You assign a discount rate.
3. You calculate the present values.
4. You add them up. The total is the value of the investment.

This is the approach we prefer. Technically, it is the correct method, and it reflects what you are buying. In any investment, you are buying future cash flow. So the value of your investment is the present value of the cash flow. Regardless what any market does, this is what your investment is worth to you.

Unfortunately, while there are only four steps, step one requires that you predict the future, step two requires that you come up with a reasonable discount rate, and step three requires the ability to calculate present values. Step four is easy, but first you must get to it.

Step 1: Determine Future Cash Flow

There are really two parts to this. First we must define what makes up cash flow. The Canadian Investment Management Course, uses projected dividends. This makes a certain amount of sense, as dividends are the physical cash flow that shareholders get. However, if we were to follow this approach, we might assume that a high growth company that does not pay dividends is worthless. In our opinion, all income earned by the company is the shareholders, regardless if it is reinvested or paid out to the shareholders right away. So, we do not recommend using dividends.

In the book, The Warren Buffet Way, Buffet's method is discussed. He uses adjusted cash flow. Cash flow per share is basically earnings per share plus non cash expenses like depreciation and amortization. To come up with adjusted cash flow per share, you deduct an amount for expected capital outlays. In our opinion these are the best amounts to use. Since depreciation is really only an allocation of past capital expenses, it makes sense to replace it with future capital expenses. Unfortunately, most of us have no way to accurately predict this.

However, in the book, the author notes that Buffet concedes that in most cases depreciation is a pretty good indication of average future capital expenses. This is also our position, as depreciation is an accounting allocation of past capital expenses. So we believe that for most people, ourselves included, the best amount to use is earnings per share. Now all we have to do is project future earnings per share.

This is where the fun begins, and where most people resign themselves to using the empirical methods discussed in our last Chapter. There are many ways to do this, all requiring a lot of judgment. What we do, is run some trend analysis of the past, consider everything that we know about the company, consider a few key rules and then make judgment calls. The following summarizes our approach.

We should note that we have developed this computer program to help us with this. First we chart past sales per share, earnings per share and cash flow per share for the last five to ten years. Then we draw exponential trend lines through the charts. Using these, we can determine what past growth rates have been, and what current earnings per share (opening EPS) would be if this were an average year. From this we project a growth rate for the next five years, a rate for years five to ten, and a rate from year ten to infinity. Then, starting with our opening EPS, we calculate earnings per share for each of the next ten years.

When setting the growth rates we keep a few rules in mind.
- Over the long run, earnings per share are not likely to grow any faster than sales per share. In many cases, sales per share may be the most meaningful number for estimating growth.
- Growth rates of over twenty percent are rarely sustainable.
- It may not be realistic to assume as high growth rates in the second five year period as the first.
- Companies in cyclical industries usually experience decreases in income every few years.

· Historic inflation is about three percent, so when projecting growth rates for the past ten years, it is probably only reasonable to use a growth rate of three or four percent.

Step 2: Assign a Discount Rate

Before you can calculate the present value of future earnings per share, you must assign a discount rate. This rate should represent the return on investment that you require on this investment.

In The Warren Buffet Way, Buffet's method is described as using the yield on Long Term Federal Government Bonds. Buffet claims that this should be the best return that he can get on a safe investment. Most investors would start with this, then add a factor for risk, but apparently Buffet claims that he does his homework, and therefore does not take risks. If your name is Buffet, you are one of the richest people in the United States and considered the most successful investor of all time, you can probably get away with this. However, the rest of us mere mortals should add an allowance for risk.

The rate you assign is a personal matter and we can only describe what we do. In times such as this, when inflation is near historic rates of about three percent, we look to get a return of between ten and twelve percent on conservative stocks, twelve to fourteen percent on average stocks and above that on more risky stocks. We base this on the fact that over this century while inflation has averaged about three percent, blue chip stocks have averaged about ten percent. Again, this is a judgment call.

Step 3: Calculate the Present Values

From here on it is a straight mathematical exercise. Using your discount rate, you calculate the present value of all future earnings per share.

Our program has the formula built into it, but it can be done manually. If you are used to using present value tables, the values can easily be calculated. These tables can be found in most financial text books. Find the table for the present value of one dollar due at the end of *N* periods. For each of the first ten years projected earnings per share, multiply the amount by the appropriate discount factor. To find the discount factors on the table, go across the top of the page to the percentage you selected for your discount rate, then go down by year. For instance, if the discount rate was ten percent, depending on rounding, year one's discount factor would equal 0.90909, year two's would be 0.82645, etc.

This factor can also be calculated as follows. If the rate is twelve percent, divide 1 by 1.12 for the first year (answer = 0.89286), then the answer by 1.12 for the second year (answer = 0.79719), and so on.

The above covers the first ten years. Now you must calculate the present value of earnings per share from year ten onward. To do this there is a formula, often called the Gordon Formula.

To calculate it you divide your expected earnings per share in year eleven, by your discount rate less your growth rate for year ten to infinity.

So if the expected earnings per share in year 11 was $1.00, your discount rate was 10% and your growth rate after year ten was 3%, the calculation would be:

Future Value = $1.00/(10%-3%) = $14.29.

Actually, this is the value in year eleven, so now you must calculate its present value. To do that, get your present value factor from the table for year eleven, then multiply it by the amount, ($14.29 in the example).

Step 4: Total the Present Values

This last step is easy, add up the eleven present values calculated in step three. The total is the intrinsic value of the shares.

Section D
Other Investment Issues
Chapter 1. Glossary

Asset Mix: The mix of different types of investments held in order to strike a balance of risk and return.

Balance your portfolio: Holding different types of investments to strike a balance of risk and return.

Bear Market: A declining market. One who expects the market to drop is said to be bearish.

Bull Market: A rising market. One who expects the market to rise is said to be bullish.

Capital: Financial assets including cash and securities.

Correction: Or Market Correction. When a hot market drops back to more reasonable levels. Historically markets go up, but along the way there are setbacks. These setbacks are often called market corrections. In theory they are correcting an overheated increase, in practice, this may or may not be true.

Covering a Short Position: After selling short, you must eventually buy the investment to cover your short position. This is called covering your short position. (See also Short Position).

Diversify: Spreading investment risk by holding securities of different companies in different kinds of businesses and/or locations.

Equity Investment: Investments in shares of companies.

Fixed Income investments: These are investments where the return, term and maturity value are set. So you know what your investment income will be. For example, guaranteed investment certificates, or bonds.

Hedge: A transaction intended to reduce the risk of loss from price fluctuations.

Liquidity: Ability to convert an investment into cash.

Load: The sales fee charged when buying or selling a mutual fund.

Long Position: Also referred to as going long. Refers to holding an investment that you have not sold, or buying it before you sold it. (Opposite to Short Position).

Management Expense ratio: Total management fees and other expenses charged to a mutual fund, expressed as a percentage of the funds assets.

Market Value: The amount that a security is currently trading for.

Portfolio: A group of investments.

Securities: Financial assets such as stocks, bonds, treasury bills, guaranteed investment certificates, etc.

Shares of a Company: Certificates of ownership of the company. The greater the number of shares, the more the holder owns. In theory there would be a certificate for each share, in practice

a certificate indicates how many shares it represents. Note: The practice of issuing certificates to registered owners is declining and will probably be abolished one day. However, the owner will still own shares, they just will not hold a piece of paper to prove it.

Short Position: Also referred to as selling short. The act of selling an investment before you purchase it. A short position is when you have sold the investment, but have not yet purchased it. (See also Covering a Short Position). (Opposite of Long Position).

Speculating: Buying securities in the hopes of making money fast.

Speculative Investment: An investment with a high risk and high potential pay off.

Stocks: See Shares.

Volatility: The amount that an investment's value and return changes. A highly volatile investment will be subject to large fluctuations in value, while a low one will hold its value and provide more steady growth.