Stock Analyst 3

Version 3.2
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Developed by

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An investor should be aware that there is no investment method that will work 100% of the time. There will be assumptions, ifs, and maybes in the analysis of stock choices. The techniques in this guide will help you improve investment choices. Look at the many indicators and suggestions as a whole. Because financial analysis is highly interrelated, there are no absolute answers.

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1: Introduction

Purpose of Stock Analyst

Stock Analyst helps the investor find quality, growth companies which are fairly valued, in order to achieve superior results.

Stock Analyst applies time-tested principles of long-term stock investing, providing the charts and mathematical calculations necessary to prepare and complete various analysis forms and worksheets. In addition, you will find many optional items and forms to help you with your analysis.

Stock Analyst’s tools help you to complete a company study thoroughly and consistently. To maximize return on your stock investments, it is prudent to evaluate the performance of companies over a number of years. This helps you to understand trends and to make better decisions. Manual methods of calculating performance are tedious and time-consuming. Stock Analyst allows investors to spend time in assessing and analyzing data quickly and more comprehensively than would otherwise be possible.

Stock Analyst is not a black box that magically generates stock reports. It is a comprehensive analysis program that works along with your knowledge and liberal application of judgment to help in making investment decision. Your responsibility is to become familiar with the company in order to make judgments about its past and future performance. You are responsible for making the ultimate decision about the merit of a company as an investment for your portfolio of stocks.

Following the investing principles in Stock Analyst can be your basic path to successful life-long investing. Take the time to learn what is important in evaluating a company for investment. Develop your skill in using the Stock Analyst to examine well-managed, quality growth companies that are fairly valued. Doing these things will help you develop a portfolio of investments with the potential to achieve your future financial security.

A Word of Warning to the Beginning Investor

This program is intended to provide tools for intermediate through advanced
level investors. There is no Beginner Level in this program, nor is there a tutorial.

As a beginning investor, you may be confronted with several areas of learning: learning about the Windows environment, learning about Stock Analyst, learning about investing terms and methods, and learning where data is found and which data to use. Any or all of these could be obstacles to a quick start.

As a beginner, you should put Stock Analyst away and consider purchasing Classic Plus, also developed by ICLUBcentral. Classic Plus incorporates a wizard and other tools to help you learn how to analyze common stocks. By taking you through each form or worksheet one step at a time, and by focusing your attention on specific details, Classic Plus ensures that nothing is missed. When you’re ready, you can move up to Stock Analyst and use the program with much greater confidence.

### Help from Stock Analyst

#### Help

Stock Analyst contains extensive context-sensitive help. Pressing the F1 function key triggers context-sensitive Help for the item under the cursor. You may find specific Help topics using the Search feature of the Help system. Use the online Help system search capability to find all entries dealing with your selected topic. Type in your search word, and click List Topics to see the result of your search. Highlight a topic and click Display to see the explanation.

#### This Manual

This manual can be useful in learning the basics of operation. You should refer to the extensive Glossary for definitions and interpretations of terms, references to where they are used in the program, and formulas for their calculation. The manual is saved to your computer in Adobe Acrobat (PDF) format when the program is first installed. The easiest way to discover answers to your questions is to use Acrobat’s search function to quickly find keywords in the PDF manual itself.

In addition, printed copies of this manual are available for purchase from ICLUBcentral. Visit [www.iclub.com/NSA/](http://www.iclub.com/NSA/) for more information.

#### Glossary

Also included with Stock Analyst is an online Glossary of terms. Select the Help menu item and choose Glossary within Stock Analyst to access the Glossary. You may also click the glossary button at the top of the help file window to open the glossary.
The Right Mouse Button

The right mouse button is used extensively within Stock Analyst. Its purpose applies to several areas, depending upon the nature of the item clicked. Using the right mouse button, you may:

1. Set or reset specific values
2. Select from a list of appropriate responses or enter a custom response
3. Select or de-select a program option

If you are ever unclear about an item on the screen, use the right mouse button for guidance.

Help from ICLUBcentral

Technical support is available on the ICLUBcentral Inc. web site at www.iclub.com. You may review the “Frequently Asked Questions” section of the web site and receive general information on using Stock Analyst.

ICLUBcentral provides a listing of help resources for users of Stock Analyst on its web site at www.iclub.com/stockanalyst/tips/. Here you may find articles, PowerPoint presentations, tip sheets, links and other information that may be helpful to you as you learn and use the program.

ICLUBcentral also hosts an informal discussion group for users of Stock Analyst to talk about the program and learn new ways for using it. Conversations are conduced via e-mail. For more information on joining, please visit www.iclub.com/products/NSA/usersgroup.asp.

The Answer to Your Question May Be at Your Fingertips

Before contacting ICLUBcentral Technical Support, be sure to review the following sources first.

- Select Help from the Main Menu and use the Contents and Search buttons.
- Check the Table of Contents and Index to see if the answer to your question is in this Manual.
- Use the Glossary in Help or the Manual to look up definitions for any of the terms used in the software or manual that you do not understand.
- Check the README text file that is located in the program directory. It may contain information that was not
When Requesting Technical Support

If you cannot solve your problem using online help, the most efficient way to contact an ICLUBcentral Technical Support Representative is to use our web help forms located at www.iclub.com/support/. Our experts will then easily be able to retrieve and reply to your question or problem quickly and efficiently.

Technical support is available for 90 days starting from the shipment date; after that date, support is available to customers who subscribe to the ICLUBcentral Investing Software Maintenance Agreement. This program offers free updates, technical assistance by phone or online and other benefits. For more information, see www.iclub.com/isupport/.

Use the following list as a guide to help our experts quickly answer your questions:

1. Write down the precise wording of any error message displayed when you had a problem, including the names of any files mentioned in the message.

2. Be familiar with:
   a) The version number of Stock Analyst (from Help | About Stock Analyst).
   b) The version of Windows you are using (from Help | About Stock Analyst | System Info).
   c) The make, model and amount of memory (RAM) on your computer (from Help | About Stock Analyst | System Info).
   d) The make and model printer if you have a question or problem regarding the printing of reports.

3. Note your Stock Analyst serial number and date of purchase/installation (from Help | About Stock Analyst).
2: Installation

**Installing Stock Analyst on your computer.**

**Installing and Running Stock Analyst**

**Performance**

The complex algorithms and graphic requirements of Stock Analyst and the Windows operating system will benefit from more than a minimal computer configuration. As with any system, each computer component contributes to overall throughput. Although computer speed and memory will affect overall performance, newer components like video cards and printers may contribute substantially to overall performance. Future program enhancements may demand greater computer resources including processor speed, memory, and hard disk space. Users should consider these factors when upgrading their computer systems.

**Specifications**

Stock Analyst is a 32-bit program and requires Microsoft Windows XP or Windows 2000 operating systems.

**Minimum System Requirements:**
- Pentium Class Processor
- 128 MB RAM
- 40 MB Hard Drive Space
- Microsoft Windows 2000 or XP
- 800x600 Resolution
- CD-ROM Drive

**Recommended System Requirements:**
- 1GHz processor
- 256 MB RAM
- 100 MB Additional Hard Drive Space
- Microsoft Windows XP
- 1024x768 Resolution
- High-Speed Internet Access
Subscription to a data service

Stock Analyst prints to all printers supported in the Windows environment.
The Stock Analyst database is only limited by the amount of hard disk space
available up to 1 gigabyte maximum.

Installation

Insert the Stock Analyst 3 CD in the drive. The start-up program will start
automatically and display an installation screen. Follow the prompts to install
the program.

For the latest information that could not be included in the manual, review
the README.DOC file on the Stock Analyst 3 CD. When installing the pro-
gram, you will see a prompt to access this file. Later it can be accessed
through the Stock Analyst 3 program folder using Windows Explorer, i.e.
/Program Files/ICLUBcentral/Stock Analyst/ReadMe.doc

Registration

You must register your copy of Stock Analyst within thirty days of installa-
tion or the program will revert to demonstration mode, allowing only
limited functionality. Until you complete the registration process, you will be
prompted to register each time you start the program. To register, you must
first make sure that your computer is connected to the Internet, and then fol-
low the instructions on the screen. You will need your Serial Number from
the original Stock Analyst package in order to complete the registration.

Uninstalling the Program

To remove the program from your system, go to the Windows Control Panel,
select Add/Remove Programs. Find the entry for Stock Analyst, and click the
Remove button. Follow the prompts to remove the program files.

Database Backup

Power loss to your computer may cause the program’s database file to be
corrupted and no longer accessible. In most instances, the program will de-
tect this when you restart your computer. It will initiate the database backup
utility automatically while advising you of this action. Because of such pos-
sibility (however small), it is recommended that you backup your database
regularly. Back up of this file is possible from the Options | Backup database
menu item.
Getting started with Stock Analyst requires an introduction to the major components of the program as they appear on your computer screen. You may read this chapter or go directly to Help | Quick Start Guide always returning here for more detailed information.

Overview

The interface for Stock Analyst consists of three major components: the Menu Bar and Toolbar (shortcuts), the List Panel (on the left) and the Main Viewing Area.

The Menu Bar provides access to File, View, Options, Window and Help menus (as well as other choices that may appear when using different features of the program) containing general program commands. Directly below is the shortcut Toolbar with 10 icons for one click access to most commonly used screens: New Company form, Open Company Database, Save, Print,
Sort Screen, Update Company Prices, Update Companies, Favorites, Preferences and Help

The **List Panel**, along the left column of the screen, contains commands for inputting and viewing company data, stock comparisons, and your portfolio of stocks.

Choosing a company, comparisons, or portfolio button and the **List Panel** will open those forms, graphs, guides, and data entry screens in the **Main Viewing Area**. You will perform your stock analysis in this window. All company stock analysis forms can be quickly accessed by clicking tabs at the top of the **Main Viewing Area**.

### Calculations and Data Entry

Calculations in the Stock Analyst program are accurate; however the results are formatted and displayed for easy interpretation. This may be a cause of concern to the user.

An example would be the calculation of a Price-Earnings Ratio (PE). The computer may calculate a number to be 12.3456. For clarity, it is displayed and printed as 12.3. Rounding a number for display does not result in a loss in accuracy in the computations because the calculations are always based on the internal representation of the numbers.

The most obvious example of the rounding and truncation is in the calculation of certain values such as Estimated High and Low Prices.

For example, a PE Ratio may be displayed as 12.6 and the Estimated EPS as $3.33. In actuality, the values (stored internally to the computer) are fractionally different. The answer displayed ($42.09) is based on the actual figures stored in the computer. This is different from the answer of $41.958 that would result from doing the multiplication using the displayed numbers. The rounding of numbers does not significantly alter the resulting analysis, though the values themselves are slightly different.

### Entering Numbers

**Entering 0 (zero) as data**

On a very few occasions you may need to enter a 0 (zero) for actual reported data. Since zero is interpreted as no data by Stock Analyst, to ensure proper interpretation enter a very small number, i.e. 0.001.

**Large numbers**

Large numbers, for instance of sales, could sometimes present a problem. In these instances, use the units selection option in the Company Data entry window to choose Billions instead of Millions.

**Negative numbers**

Negative numbers are entered with a minus sign (-), e.g. –12.34.
Simplifying entering data

Enter only the most significant digits (i.e. 123,456,000 are entered as 123.4 or 123.5 millions). The loss of accuracy due to rounding or truncation will not appreciably affect the results.

Modal Windows

Stock Analyst uses some “modal windows” for changing some values or making selections. You must close a modal window (by clicking the appropriate button: OK, Cancel, Exit, Close, etc.) before you can access any other window in the software.

Menu Items: File, View, Options, Window

The menu items: File, View, Options, Window, and Help are standard Windows menu items.

File Menu

The File menu contains commands for creating, opening, saving, and printing program documents, and for exiting the program. The File menu includes:

<table>
<thead>
<tr>
<th>ITEM</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>New</td>
<td>Select to enter data for new Stock Selection Guide, portfolio, Stock Comparison Guide or Challenge Tree.</td>
</tr>
<tr>
<td>Open</td>
<td>Select to open SSG, Portfolio, Challenge Tree, Stock Comparison Guide or Prospector.</td>
</tr>
<tr>
<td>Save</td>
<td>Save the file with all parameters and judgments.</td>
</tr>
<tr>
<td>Save As (datafile)</td>
<td>Save the file as a generic SSG (with judgment removed) or SDF datafile to your computer.</td>
</tr>
<tr>
<td>Export</td>
<td>Export multiple companies from your database as SSG or SDF datafiles.</td>
</tr>
<tr>
<td>Print</td>
<td>Print the report shown on the screen.</td>
</tr>
<tr>
<td>Print Report</td>
<td>Allows you to print a customized selection of analytical reports about a specific company.</td>
</tr>
<tr>
<td>Selections</td>
<td>Delete a portfolio, company, SCG, or Challenge Tree.</td>
</tr>
<tr>
<td>Update</td>
<td>Update prices or company data from the internet.</td>
</tr>
<tr>
<td>Last Used List</td>
<td>Up to five items last viewed or changed</td>
</tr>
<tr>
<td>Close</td>
<td>Closes the currently open company.</td>
</tr>
<tr>
<td>Exit</td>
<td>Exit from the program.</td>
</tr>
</tbody>
</table>

View Menu

The View menu contains commands for showing toolbars and sorting records on screen. The selections in the View menu include:
### ITEM DESCRIPTION

<table>
<thead>
<tr>
<th>ITEM</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sort Companies</td>
<td>Shows the view/sort records screen.</td>
</tr>
<tr>
<td>Company/Favorite Web Sites</td>
<td>Opens the ‘Favorite web sites’ box with links to company and other web sites.</td>
</tr>
<tr>
<td>List Panel</td>
<td>Shows or hides the list panel.</td>
</tr>
<tr>
<td>Toolbar</td>
<td>Shows or hides the shortcut toolbar.</td>
</tr>
<tr>
<td>Status Bar</td>
<td>Shows or hides the status bar along the bottom of the screen. Includes date and time.</td>
</tr>
<tr>
<td>Refresh</td>
<td>Refreshes the main window display.</td>
</tr>
</tbody>
</table>

### Company Menu

The Company menu contains commands for showing toolbars and sorting records on screen and is only available when you have a company open for analysis in the main viewing area. All of these controls except Preferred Procedure can be accessed with one click of the icons in the Main Viewing area. The Company menu includes:

<table>
<thead>
<tr>
<th>ITEM</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Data Entry</td>
<td>Enter or change company’s historical data.</td>
</tr>
<tr>
<td>Preferred Procedure</td>
<td>Calculates future earnings using historical sales growth and other estimates.</td>
</tr>
<tr>
<td>Graphs</td>
<td>Select graphs in which to view data for:</td>
</tr>
<tr>
<td></td>
<td>• SSG Graph</td>
</tr>
<tr>
<td></td>
<td>• Section 2 Graphics</td>
</tr>
<tr>
<td></td>
<td>• PMG Graph</td>
</tr>
<tr>
<td></td>
<td>• PERT Graph</td>
</tr>
<tr>
<td></td>
<td>• Trend Graph</td>
</tr>
<tr>
<td>Analysis</td>
<td>Go to one of the following sections for the company:</td>
</tr>
<tr>
<td></td>
<td>• SSG Graph</td>
</tr>
<tr>
<td></td>
<td>• Balance Sheet</td>
</tr>
<tr>
<td></td>
<td>• Stock Checklist</td>
</tr>
<tr>
<td></td>
<td>• SSG Report</td>
</tr>
<tr>
<td>Reports</td>
<td>Go to one of the following reports for the company:</td>
</tr>
<tr>
<td></td>
<td>• PMG</td>
</tr>
<tr>
<td></td>
<td>• PERT A</td>
</tr>
<tr>
<td></td>
<td>• PERT B</td>
</tr>
<tr>
<td></td>
<td>• Balance Sheet Report</td>
</tr>
<tr>
<td></td>
<td>• Company Data Report</td>
</tr>
</tbody>
</table>

### Portfolio Menu

The Portfolio menu contains commands for showing toolbars and sorting re-
CORDS on screen and is only available when you have a portfolio open for analysis in the main viewing area. All of these controls can be accessed with one click of the reports in the Main Viewing area as well at the bottom of the screen. The Portfolio menu includes:

<table>
<thead>
<tr>
<th>ITEM</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Edit Portfolio</td>
<td>Enter or change Portfolio name or account information.</td>
</tr>
<tr>
<td>Summary</td>
<td>Presents a screen of the portfolio holdings. Each column can be sorted by clicking the heading. Add, edit or delete holding from this screen.</td>
</tr>
<tr>
<td>Analysis</td>
<td>Presents a screen of the portfolio holding with analysis that can be sorted.</td>
</tr>
<tr>
<td>PERT Report</td>
<td>Summary report of all holdings.</td>
</tr>
<tr>
<td>Diversification</td>
<td>By capitalization, revenue, sector or currency. Includes graphs.</td>
</tr>
<tr>
<td>Retirement Planner</td>
<td>Takes current portfolio with adjustable inputs to calculate a result.</td>
</tr>
<tr>
<td>Update Prices</td>
<td>While online, will get current prices for the portfolio holdings.</td>
</tr>
</tbody>
</table>

**Options Menu**

The Options menu allows the user to alter parameters for the various reports and analysis areas of the program. The selections in the Options menu item include:

<table>
<thead>
<tr>
<th>ITEM</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Calculator</td>
<td>Opens calculator.</td>
</tr>
<tr>
<td>Backup database</td>
<td>Creates backup file of program database.</td>
</tr>
<tr>
<td>Restore database</td>
<td>Restores previously backed up files.</td>
</tr>
<tr>
<td>Clear database</td>
<td>Removes all data from program database.</td>
</tr>
<tr>
<td>Preferences</td>
<td>Opens the ability to alter parameters for reports, analysis, and program settings.</td>
</tr>
<tr>
<td>Issue share splits</td>
<td>Records stock splits.</td>
</tr>
</tbody>
</table>

**Window Menu**

The Window menu allows the user to toggle between or view two or more different stock analysis, portfolio, and SCG windows at one time. The selections in the Window menu item include:

<table>
<thead>
<tr>
<th>ITEM</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cascade</td>
<td>Creates a view where all windows are visible and stacked.</td>
</tr>
</tbody>
</table>
Tile Horizontal  
Splits screen among all active windows horizontally.

Tile Vertical  
Splits screen among all active windows vertically.

Windows List  
Lists all screens open with a check next to the active window.

Help Menu

The Help menu selections include:

<table>
<thead>
<tr>
<th>ITEM</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Contents</td>
<td>Contents for entire Help system.</td>
</tr>
<tr>
<td>Search</td>
<td>Search the Help system via keyword of Index.</td>
</tr>
<tr>
<td>Glossary</td>
<td>A complete hyper-linked glossary of investing terminology.</td>
</tr>
<tr>
<td>Program Manual</td>
<td>Viewable or printable manual using Adobe Acrobat.</td>
</tr>
<tr>
<td>Quick Start Guide</td>
<td>Quick guide to getting started.</td>
</tr>
<tr>
<td>Check for Program Updates</td>
<td>Periodic improvements and enhancements may be posted and this is a shortcut to the website.</td>
</tr>
<tr>
<td>Enter Unlock Code</td>
<td>For registered users, this is grayed-out. For users of the demonstration version, you may enter a serial number here to unlock the program during or after your 30 day trial period.</td>
</tr>
<tr>
<td>Registration</td>
<td>For online user registration.</td>
</tr>
<tr>
<td>Stock Analyst Website</td>
<td>A quick website link to ICLUB.com.</td>
</tr>
<tr>
<td>About Stock Analyst</td>
<td>Version number, serial number, owner, system information, addresses, phone numbers and links to support.</td>
</tr>
</tbody>
</table>
4: Companies

*The Companies List Panel lets you select companies to view and analyze.*

**Companies List Panel**

The Company List Panel consists of three parts:

<table>
<thead>
<tr>
<th>ITEM</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Companies</td>
<td>Displays the company list. Open by default upon start of the program. A new installation of Stock Analyst is provided with several sample companies to help you get started.</td>
</tr>
<tr>
<td>Drop-down list box</td>
<td>The drop-down list box contains an “All Companies” item and the names of your portfolios. Selecting “All Companies” displays all the companies entered into your database. Selecting a portfolio name displays the companies you have entered for that portfolio. “All Companies” is the default upon start of the program. A new installation contains 2 sample portfolios: “Personal” and “Club.”</td>
</tr>
<tr>
<td>Company Listing</td>
<td>Displays a list of company names. Click a name to...</td>
</tr>
</tbody>
</table>
ITEM | DESCRIPTION
--- | ---
display the company’s chart in the main viewing area. It is possible to have multiple companies, or multiple copies of the same company, open in the viewing area. A warning dialog will appear for each additional attempt to open a company window.

Loading a Company

**Loading Directly from a Stock Data Service**

One way to work on a new company is to load data from BetterInvesting’s S&P Stock Data Service.

Once you have a Stock Data Service account, enter the stock symbol in the symbol field and push the ‘Go’ button. *Access to Stock Data Service:* Make sure that your user name and password are entered into the Preferences | General area.

You can also use the File | Open | Company screen and choose ‘Import S&P Stock Data Service’ tab.

**Loading from Your Computer**

In its database, Stock Analyst provides an initial sample list of companies. The studies for the stocks that are preloaded have been completed as educational samples and are not meant as recommendations.

To load a company from a local computer, simply click it from the list menu on the left or go to the menu line at the top of the screen, click File | Open | Company. This shows you the list of companies in your database, on your computer as SSG or SDF files or ones that can be downloaded while online. Select the company you wish to load and click OK.

See Chapter 8 – Company Data for more detailed information on datafiles.

**Starting a New Company Study**

To enter a new company manually, go to File | New | Company and enter as much data as possible, or as much as is necessary to create a workable SSG analysis. See Chapter 5 – Company Data Entry Window for more detailed information.

**Company Window**

The company window displays a wealth of company data in useful ways. The
Companies' Stock Analyst 3

Tabbed icons on the toolbar in the company window allow you to select the type and format for data display.

### SSG Selection Guide

The most widely used aid to good investment judgment

<table>
<thead>
<tr>
<th>Description</th>
<th>Portfolio Management Guide report and graph.</th>
</tr>
</thead>
</table>

The following provides a summary of the company window’s options. Following sections provide more detail about each option.

<table>
<thead>
<tr>
<th>ITEM</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stock Check List</td>
<td>Shows the Stock Checklist (see the Options menu to turn on and off the display of this button).</td>
</tr>
<tr>
<td>SSG Graph</td>
<td>Shows the Stock Selection Guide Part 1, Visual Analysis (SSG Graph).</td>
</tr>
<tr>
<td>SSG Analysis</td>
<td>Evaluates management and Price-Earnings ratios, and gauges opportunity for total return.</td>
</tr>
<tr>
<td>SSG Report</td>
<td>Helps you determine whether a company meets your goals as an investment (see the Options menu to turn on and off the display of this button).</td>
</tr>
</tbody>
</table>

The chart shows historical sales growth, historical EPS growth, estimated future sales growth, and estimated future EPS growth from 1994 to 2008.
ITEM | DESCRIPTION
---|---
PERT | Company Portfolio Evaluation Review Technique reports. Select from PERT A, PERT B or the PERT Graph.
Balance Sheet Report | Shows information about the nature and amount of a company’s assets, liabilities, and shareholders’ equity on a given date.
Data Entry | Provides data entry tabs for reports and analyses.
Data Report | Displays the Data Report.
Trend Graph | Allows comparisons of different financial metrics from a company.

**Stock Check List**

The Stock Check List is a simplified analysis tool.

<table>
<thead>
<tr>
<th>Stock Check List</th>
<th>Company</th>
</tr>
</thead>
<tbody>
<tr>
<td>for Beginning Investors</td>
<td>AFFILIATED COMPANIES - CLA.</td>
</tr>
<tr>
<td>Preceding</td>
<td>10th Year</td>
</tr>
<tr>
<td>Date</td>
<td>05 Jan 2006</td>
</tr>
</tbody>
</table>

**1 PAST SALES RECORD**

<table>
<thead>
<tr>
<th>Item</th>
<th>Sales for most recent year were</th>
<th>$4,051.16 M</th>
</tr>
</thead>
<tbody>
<tr>
<td>Item</td>
<td>Sales for next most recent year were</td>
<td>$4,106.35 M</td>
</tr>
<tr>
<td>Item</td>
<td>Total of above (1,2)</td>
<td>$8,157.51 M</td>
</tr>
<tr>
<td>Item</td>
<td>Figure above divided by 2</td>
<td>$4,228.76 M</td>
</tr>
<tr>
<td>Item</td>
<td>Sales 5 years ago were</td>
<td>$1,882.38 M</td>
</tr>
<tr>
<td>Item</td>
<td>Sales 6 years ago were</td>
<td>$1,647.22 M</td>
</tr>
<tr>
<td>Item</td>
<td>Total of above (5,6)</td>
<td>$3,529.60 M</td>
</tr>
<tr>
<td>Item</td>
<td>Figure above divided by 2</td>
<td>$1,764.80 M</td>
</tr>
</tbody>
</table>

**2 PAST EARNINGS PER SHARE RECORD**

<table>
<thead>
<tr>
<th>Item</th>
<th>Earnings Per Share for most recent year were</th>
<th>$2.12</th>
</tr>
</thead>
<tbody>
<tr>
<td>Item</td>
<td>Earnings Per Share for next most recent year were</td>
<td>$2.65</td>
</tr>
<tr>
<td>Item</td>
<td>Total of above (1,2)</td>
<td>$5.77</td>
</tr>
<tr>
<td>Item</td>
<td>Figure above divided by 2</td>
<td>$2.89</td>
</tr>
<tr>
<td>Item</td>
<td>Earnings Per Share 5 years ago were</td>
<td>$1.00</td>
</tr>
<tr>
<td>Item</td>
<td>Earnings Per Share 6 years ago were</td>
<td>$0.83</td>
</tr>
<tr>
<td>Item</td>
<td>Total of above (5,6)</td>
<td>$1.83</td>
</tr>
<tr>
<td>Item</td>
<td>Figure above divided by 2</td>
<td>$0.90</td>
</tr>
</tbody>
</table>

**SSG Graph**

This graph records and measures historical growth of sales and earnings.
SSG Graph Options

The SSG Graph has many options to help in your viewing and analyzing the graphs. Right-click on the graphs to access a popup window similar to the following. For more detail, see Chapter 9 – Stock Selection Guide Graph.

Note that the options available may appear differently from those in this illustration, depending on the exact location where you click on the graph.

The following options are available in the popup windows on the SSG graph.

<table>
<thead>
<tr>
<th>ITEM</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Show Header</td>
<td>Shows/hides the top strip on SSG graph.</td>
</tr>
<tr>
<td>SSG Graph Options</td>
<td>Opens window to allow customization of the display of SSG Graph.</td>
</tr>
<tr>
<td>Sales</td>
<td>Plot Historical - Shows historical values for company sales.</td>
</tr>
<tr>
<td></td>
<td>Draw Trend Line - Draws historical trend line of company sales using least squares method.</td>
</tr>
<tr>
<td></td>
<td>Draw Projection Line - Draws future trend line based on</td>
</tr>
<tr>
<td>ITEM</td>
<td>DESCRIPTION</td>
</tr>
<tr>
<td>---------------------</td>
<td>---------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>company’s historical sales.</td>
<td></td>
</tr>
</tbody>
</table>
| EPS                 | Plot Historical - Shows historical values for earnings per share.  
|                     | Draw Trend Line - Draws historical trend line of company’s earnings per share.  
|                     | Draw Projection Line - Draws future trend line based on company’s historical earnings per share.  
|                     | Preferred Procedure - Uses projected sales as starting point for calculating future EPS.                                                   |
| Prices              | - Draws yearly high and low stock prices.  
|                     | Display Prices as Fractions - Displays stock prices as fraction values instead of decimal values.                                           |
| Preferred Procedure | Displays screen to calculate future EPS growth based on estimates of sales and other values.                                                |
| Plot Pretax Income  | Draws values for pre-tax income. Useful for understanding the relationship between sales and earnings.                                       |
| Plot Trend/Projection Lines | Draws or hides all projection lines.                                                                                                   |
| Recent Quarterly Figures | Displays the quarterly information box in the top left corner.  
|                     | You may want to remove this box for a better view of historical data on the graph.                                                       |
| Growth Calculation  | Growth Calculation is either mid-point or least squares:  
|                     | Mid-point - Uses a mathematical algorithm to calculate growth based on averaged values.                                                   |
|                     | Least Squares - Applies a complex mathematical formula using regression methods to calculate growth.                                      |
| Zone Indicator      | Shows/Hides the Zone Indicator. For completed SSGs, the Zone Indicator shows the Buy, Hold, and Sell zones at the right hand side of the SSG graph. |
| What’s this?        | Clicking this selection opens a small help window that explains the SSG graph, and provides a link to additional help information.         |

**SSG Analysis**

This is a window open to the back page of the Stock Selection Guide (SSG).
SSG Analysis Options

Various options and selections are available with a click of the right mouse button in Section 2 of the SSG Analysis screen.

Note that the options available may appear differently depending on where you click on the graph.

The following options are available in the popup windows in Section 2.

<table>
<thead>
<tr>
<th>ITEM</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>SSG Analysis Judgment</td>
<td>Opens window that summarizes all judgment areas on the SSG and provides an opportunity to edit or reset to default values.</td>
</tr>
<tr>
<td>Section 2 Graphics</td>
<td>Opens window in which several data items related to Section 2 data. Note that this option is visible only if you right-click on Section 2 of the SSG form.</td>
</tr>
<tr>
<td>Debt to equity</td>
<td>Displays debt to equity metric in SSG Part 2.</td>
</tr>
<tr>
<td>Part 3 Extras</td>
<td>Part 3 Extras shows the projected values for EPS, Price-Earnings ratio, and the method of...</td>
</tr>
</tbody>
</table>
calculating projected PE.

Display Prices as fractions. You may display price data in decimal or fractional format.

Set Zone Set Zone provides the choice of the normal 33-33-33 or the 25-50-25 zone ranges for buy, hold, and sell.

What’s this? Opens a small help window.

**Projected PE Calculations**

Right clicking in the Projected Values line in Section 3 of the SSG form brings up this window. For more information on these selections, see Chapter 14 – Portfolio Evaluation Review Technique.

The following options are available in the popup windows in Section 3.

<table>
<thead>
<tr>
<th>ITEM</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Projected PE Calculations</td>
<td>Allows you to choose from:</td>
</tr>
<tr>
<td></td>
<td>Last 4 Quarters EPS</td>
</tr>
<tr>
<td></td>
<td>ACE Forecasted EPS</td>
</tr>
<tr>
<td></td>
<td>EPS Growth (Graph)</td>
</tr>
<tr>
<td>What’s this?</td>
<td>Opens a small help window.</td>
</tr>
</tbody>
</table>

**Highlighted Areas**

Yellow highlighted areas indicate where judgment may be added. Strike out data that you consider not representative. Click on the cell to exclude/include the item; the item will toggle between blue (included) and red strike-out (excluded) text. Review appropriate sections in this manual to determine why you may want to exclude certain data from your analysis and the program’s calculations.

<table>
<thead>
<tr>
<th>ITEM</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Enter Judgment</td>
<td>In some cells, you may enter a value other than what is calculated. Enter Judgment allows you to set a value to suit your expectations.</td>
</tr>
<tr>
<td>Reset Judgment</td>
<td>Uses the value that Stock Analyst would normally calculate. You may also reset judgment for one or all reports from the Options menu item.</td>
</tr>
</tbody>
</table>
PMG and PERT

This section provides an overview of the PMG and PERT reports and a listing of the options common to both reports. Subsequent sections provide more detail on each of these reports.

A number of reports in Stock Analyst can help investors make decisions about investing in stocks. PMG (Portfolio Management Guide) and PERT (Portfolio Evaluation Review Technique) are two of these reports. They complement and add to the SSG (Stock Selection Guide) in their functions. A completed SSG is a pre-requisite to working with, understanding and benefitting from these additional reports.

Purpose of PMG and PERT

The purpose of the PMG and PERT is to track the ongoing achievements of the company so that you may compare them to estimated figures from the SSG. Ongoing refers to recording and monitoring stock price and PE Ratios (Price-Earnings ratios) each month, and sales, EPS, and pre-tax income every quarter (3 months). The basis of comparison for tracking these achievements or performance comes from the SSG. In the SSG, you set company objectives:

**Growth:** In Part 1 of the SSG by setting trends and projections for sales and EPS.

**Quality:** Calculated in Part 2A of the SSG as pre-tax income on sales.

**Value:** Calculated in Part 3 of the SSG as historical average PE Ratios.

**Risk:** Calculated in Parts 4 and 5 of the SSG as upside/downside ratio, price zoning, and total return; also in the SSG Part 1 Graph - Capitalization box as debt to capital.

Use PMG and PERT each reporting period to measure how these items vary from your expectations. Variation from your expectation is a cause for concern and demands investigation.

For stocks that you hold, this monitoring of company progress is part of your portfolio management process.

PMG and PERT flag potential buy and sell possibilities. It is important to stress that a buy or sell decision should only be derived after consulting an updated and properly completed SSG.

The PMG and PERT reports complement the SSG. Much of the information recorded in these reports is derived from the SSG. This implies that the focus to successful investing is a thorough knowledge of the SSG. You should choose to start learning the PMG and PERT reports only when you are thor-
oughly knowledgeable with the SSG. Having this sound foundation will improve your understanding and use of these additional reports.

**PMG Report**

The Portfolio Management Guide (PMG) allows you to determine if stock buying opportunities exist. You enter stock data in the PMG Report. Click on a yellow field to enter data.

Enter your data in the data entry dialog. You can enter four pieces of data in the report: the High and Low price to earnings ratios and the monthly buy and sell prices.

The report performs basic data calculations and graphs the results in the PMG Graph.

See **Chapter 13 – Portfolio Management Guide** for more information concerning using the PMG Report and Graph.

**PMG Graph**

The PMG Graph shows how price, PE, and RV (relative value) compare to the expectations set in the SSG. Price items show in blue and PE items in red. Scales for each are color-coded and may be altered by clicking on a plotted
line with the right-mouse button and selecting from the pop-up menu.

See Chapter 13 – Portfolio Management Guide for more information concerning using the PMG Report and Graph.

**PMG Graph Options**

Right-click on the PMG Graph to display the options for the screen.

<table>
<thead>
<tr>
<th>ITEM</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Display Prices as</td>
<td>Displays stock prices as fraction values instead of</td>
</tr>
<tr>
<td>Fractions</td>
<td>decimal values.</td>
</tr>
<tr>
<td>Reset Scale</td>
<td>Resets scales to their computer-calculated value.</td>
</tr>
</tbody>
</table>
PERT-A

PERT A is a worksheet where calculations from the quarterly data provide additional information about growth and profitability. The PERT A report allows for a quick scan to assess trends in the company’s profitability, sales trends, etc.

Enter and edit data for PERT A in the Company | Data screen or click the Company Data Icon in the Main Viewing area.
PERT-B

PERT B uses historical yearly data to calculate PE Ratios, payout, and dividend yields.

Enter and edit data for PERT B in the Data Entry window.
PERT Graphics

PERT Graphics shows quarterly and moving averages of % Change of EPS, % Change of Sales, $ Change of Pre-Tax Profit and % Pre-Tax Profit As a % of Sales.

The arrow heads in each graph can be used to adjust the scales. Right clicking in the graph provides several options, including resetting of the graph scales to default values.
## Balance Sheet Report

The Balance Sheet Report helps you perform fundamental analysis beyond the Stock Analyst’s Stock Selection Guide. It includes metrics about the company’s financial position, including debt levels, cash flows, capital structure analysis, and growth rates and valuations.

### Quality

<table>
<thead>
<tr>
<th>Metric</th>
<th>Industry</th>
<th>Data Processing &amp; Outsourced</th>
</tr>
</thead>
<tbody>
<tr>
<td>VL Safety</td>
<td></td>
<td></td>
</tr>
<tr>
<td>VL Financial</td>
<td></td>
<td></td>
</tr>
<tr>
<td>VL Timeliness</td>
<td></td>
<td></td>
</tr>
<tr>
<td>S&amp;P Quality Rating</td>
<td>B+</td>
<td></td>
</tr>
<tr>
<td>EPS R2</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Capital Structure

<table>
<thead>
<tr>
<th>Metric</th>
<th>Latest</th>
<th>Yr Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Debt/Equity</td>
<td>20.6%</td>
<td>-0.4%</td>
</tr>
<tr>
<td>Assets/Equity</td>
<td>176.7%</td>
<td>31.6%</td>
</tr>
<tr>
<td>Cash Flow/Debt</td>
<td>83.8%</td>
<td>0.00%</td>
</tr>
<tr>
<td>Short Term Debt</td>
<td>6.47</td>
<td>35.7%</td>
</tr>
<tr>
<td>Current Liabilities</td>
<td>134.472</td>
<td>52.2%</td>
</tr>
<tr>
<td>Current Assets</td>
<td>962.860</td>
<td>0.00%</td>
</tr>
<tr>
<td>Int. Paid on Debt Due</td>
<td>0.00</td>
<td></td>
</tr>
</tbody>
</table>

### Annual Growth

<table>
<thead>
<tr>
<th>Metric</th>
<th>3 Yr</th>
<th>5 Yr</th>
<th>10 Yr</th>
<th>P2</th>
</tr>
</thead>
<tbody>
<tr>
<td>High Price</td>
<td>4.1%</td>
<td>9.7%</td>
<td>20.4%</td>
<td>0.95</td>
</tr>
</tbody>
</table>
Balance Sheet Analysis

Balance Sheet Analysis is meant to help identify factors in the company’s capital structure that indicate a strengthening or weakening financial position, apart from the cash flow or income statements.

<table>
<thead>
<tr>
<th>Balance Sheet Analysis</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Company</strong></td>
</tr>
<tr>
<td>Prepared by</td>
</tr>
</tbody>
</table>

| Accounts Receivable | 32% |
| Days waiting for payment this year | 93 | Caution - Waiting period appears quite high |
| Days waiting for payment prior year | 75 | Caution - Waiting period appears quite high |
| Inventories | N/A |
| Inventory turnover days this year | N/A |
| Sales or Revenues | 6% | Increasing - OK, right direction |
| Sales to Accounts Receivable Ratio | 6.32 | Caution - AR growing faster than sales |
| Sales to Inventories Ratio | 5.0 | OK - Sales growing faster than Inventories |
| Plant & Equipment | N/A |
| Long-term Debt | 101% | Increasing - Caution, wrong direction |
| Long-term Debt this year | $750 |
| Long-term Debt prior year | $372 |

Though the report is called ‘Balance Sheet Analysis,’ it does more than just look at the balance sheet itself. Balance sheet analysis shows changes in Accounts Receivable, Inventories, Sales in relation to Accounts Receivable and Inventory, Plant and Equipment, Debt, Interest Coverage, Number of Shares Outstanding Trend, Cost of Sales, Cash Flow Growth, free cash flow margin, earnings confidence rating, net income as compared to net cash, and cash position per share.
Data Entry Screen

The Data Entry Screen allows you to enter and/or modify any data item for the company.

Click the tabs at the top of the Main Viewing Window to change to the relevant section. See Chapter 5 – Company Data Entry Window for more information.
Company Data Report

The Company Data Report is a simple report listing all raw data about the company used to generate the Stock Selection Guide. Its purpose is to allow you to see, at a glance, all the relevant information that went into creating the analysis of the company. If you manually input data, this is great for checking for keying errors.

<table>
<thead>
<tr>
<th>COMPANY DATA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Symbol</td>
</tr>
<tr>
<td>Exchange</td>
</tr>
<tr>
<td>Industry</td>
</tr>
<tr>
<td>Sector</td>
</tr>
<tr>
<td>Current Price</td>
</tr>
<tr>
<td>52 Week High Price</td>
</tr>
<tr>
<td>52 Week Low Price</td>
</tr>
<tr>
<td>Total Debt</td>
</tr>
<tr>
<td>Total Capital</td>
</tr>
<tr>
<td>Insider Holdings</td>
</tr>
<tr>
<td>Institutional Holdings</td>
</tr>
<tr>
<td>Date</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>YEARY DATA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Date of Last FY</td>
</tr>
<tr>
<td>Last Fiscal Year</td>
</tr>
<tr>
<td>Last 4 Qtrs EPS</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Year</th>
<th>Sales (millions)</th>
<th>Pre-Tax Income (millions)</th>
<th>Net Profit (millions)</th>
<th>Book Value per Share</th>
<th>Earnings per Share</th>
<th>Dividends per Share</th>
<th>High Price</th>
<th>Low Price</th>
<th>Shares Outstanding (millions)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1996</td>
<td>$306.5</td>
<td>$88.9</td>
<td>$23.8</td>
<td>$5.28</td>
<td>$1.41</td>
<td>$1.44</td>
<td>$6.84</td>
<td>$8.74</td>
<td>70.7</td>
</tr>
<tr>
<td>1997</td>
<td>$243.5</td>
<td>$56.0</td>
<td>$39.6</td>
<td>$4.85</td>
<td>$0.60</td>
<td>$1.00</td>
<td>$9.75</td>
<td>$7.18</td>
<td>68.5</td>
</tr>
</tbody>
</table>
Trend Graph

The Trend Graph allows a comparison of three financial metrics on a company across a semi-logarithmic graph. This graph is among the most useful in SA because it allows direct comparisons among all financial metrics within SA for any specific company, as well as user-defined data for any other three metrics.
5: Company Data Entry Window

The Data Entry Window provides an area to enter data used in the program’s reports, graphs and tables.

General

Data Entry Tips
Use the Control+up/down arrow keys to move to the next or previous data item. Use backspace to correct an entry. Fill in as many items as possible, leaving blank any items for which data is unavailable. Pressing the ENTER key or moving to another cell completes the data entry for a cell.

In a numeric field (cell), zero is interpreted as no data available for that cell. If the actual data is zero, enter a very small value such as .001.

Lock Company Data
The “Lock Company Data” check box appears on all Data Entry/Edit windows. If this is enabled in any screen, no data may be entered or altered for that company, by hand or when updating from an online data source.

Update New Data Only
The “Update New Data Only” check box appears on many Data Entry/Edit windows. If this is enabled, no historical data on that window will be changed when updating from an online data source such as the S&P Stock Data Service. This is useful if you have made changes to historical data or added additional data not found in the Stock Data service.

Note: the Stock Data Service does include preliminary results for many companies, and that companies occasionally restate past financial results. If the “Update New Data Only” box is checked, those corrections will not be made in your company database when updating from the Stock Data Service.
### Company Info

**Edit - AFFILIATED COMP SVCS - CL A**

<table>
<thead>
<tr>
<th>ITEM</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name</td>
<td>Company name</td>
</tr>
<tr>
<td>Symbol</td>
<td>Stock Symbol (Standard stock market ticker symbol) for this company</td>
</tr>
<tr>
<td>Exchange</td>
<td>Exchange</td>
</tr>
<tr>
<td>Industry</td>
<td>Industry group that company belongs to</td>
</tr>
<tr>
<td>Sector</td>
<td>Sector of company</td>
</tr>
<tr>
<td>Source</td>
<td>Source of data</td>
</tr>
<tr>
<td>Reference</td>
<td>Reference point</td>
</tr>
<tr>
<td>Source</td>
<td>Source of the data -- VL means Value Line, S&amp;P means Standard and Poor’s reports.</td>
</tr>
<tr>
<td>Address</td>
<td>Company address</td>
</tr>
<tr>
<td>City</td>
<td>Company city</td>
</tr>
<tr>
<td>State/Province</td>
<td>Company state/province</td>
</tr>
<tr>
<td>Zip/Postal</td>
<td>Company Zip/postal code</td>
</tr>
<tr>
<td>Country</td>
<td>Country company is located in</td>
</tr>
</tbody>
</table>

**Company Data Entry Window**

| Name                  | AFFILIATED COMP SVCS - CL A                                               |
| Symbol                | ACS                                                                          |
| Exchange              | NYSE                                                                        |
| Industry              | Data Processing & Outsourced                                               |
| Sector                | Not Defined                                                                 |
| Address               |                                                                            |
| City                  |                                                                            |
| State/Province        |                                                                            |
| Zip/Postal            |                                                                            |
| Date of Source (Date) | Jan/04/2006                                                                 |
| Date of Last FY       | Jun/30/2005                                                                 |

Source of data -- VL means Value Line, S&P means Standard and Poor’s reports.
### Company Data

<table>
<thead>
<tr>
<th>ITEM</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Contact Person</td>
<td>Contact person for company</td>
</tr>
<tr>
<td>Telephone</td>
<td>Company telephone number</td>
</tr>
<tr>
<td>Internet</td>
<td>Company web address</td>
</tr>
<tr>
<td>Date of Source (Data)</td>
<td>Date of data source used to create the data record.</td>
</tr>
<tr>
<td>Date of Last FY</td>
<td>Date of last fiscal year</td>
</tr>
<tr>
<td>Last Updated</td>
<td>Date company data last updated</td>
</tr>
<tr>
<td>Updated By</td>
<td>User who updated the data</td>
</tr>
</tbody>
</table>

The buttons at the bottom of the Company dialog box provide the following options:

<table>
<thead>
<tr>
<th>ITEM</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Update Price</td>
<td>While online will acquire price for one stock</td>
</tr>
<tr>
<td>Update Data</td>
<td>While online will acquire new data for one stock</td>
</tr>
<tr>
<td>Lock Basic Information</td>
<td>Select this option to keep data from being altered for that company.</td>
</tr>
<tr>
<td>Update New Data Only</td>
<td>Select this option to only add new data when updating from an online data provider or datafile</td>
</tr>
</tbody>
</table>

![Company Data Entry Window](image)
<table>
<thead>
<tr>
<th>ITEM</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Current Price Date</td>
<td>Date of current price</td>
</tr>
<tr>
<td>Current Price</td>
<td>Current price of stock</td>
</tr>
<tr>
<td>52 Week High</td>
<td>52 week high</td>
</tr>
<tr>
<td>52 Week Low</td>
<td>52 week low</td>
</tr>
<tr>
<td>Total Debt (Mil.)</td>
<td>Company’s total debt</td>
</tr>
<tr>
<td>Total Capital (Mil.)</td>
<td>Company’s total capital</td>
</tr>
<tr>
<td>Total Assets (Mil.)</td>
<td>Company’s total assets</td>
</tr>
<tr>
<td>Common Dividends</td>
<td>Dividends paid to common stock holders</td>
</tr>
<tr>
<td>Short Term Debt Latest 4Q (Mil.)</td>
<td>Company’s short-term debt for latest four quarters</td>
</tr>
<tr>
<td>Insider Holding (%)</td>
<td>Percentage of the stock held by insiders</td>
</tr>
<tr>
<td>Inst. Shares (000)</td>
<td>Number of shares held by institutional investors</td>
</tr>
<tr>
<td>Outstanding Shares (Mil.)</td>
<td>Number of shares outstanding</td>
</tr>
<tr>
<td>Diluted Common Shares (Mil.)</td>
<td>Number of shares outstanding including potential dilutive shares</td>
</tr>
<tr>
<td>Preferred Shares (Mil.)</td>
<td>Number of preferred shares outstanding</td>
</tr>
<tr>
<td>Preferred Dividends (Mil.)</td>
<td>Dividends paid to holders of preferred stock</td>
</tr>
<tr>
<td>Authorized Preferred Shares (Mil.)</td>
<td>Number of preferred shares authorized</td>
</tr>
<tr>
<td>Analysts’ Sales Projection</td>
<td>Analyst sales projections</td>
</tr>
<tr>
<td>Analysts’ EPS Projection ($)</td>
<td>Analyst earnings projections</td>
</tr>
<tr>
<td>Analysts’ EPS Projection (%)</td>
<td>Analyst earnings growth rate projections</td>
</tr>
<tr>
<td>S&amp;P Quality Rating</td>
<td>Select S&amp;P’s Quality rating</td>
</tr>
<tr>
<td>VL Safety</td>
<td>Value Line’s Safety ranking</td>
</tr>
<tr>
<td>VL Timeliness</td>
<td>Value Line’s Timeliness ranking</td>
</tr>
<tr>
<td>VL Financial</td>
<td>Value Line’s Financial ranking</td>
</tr>
<tr>
<td>Beta</td>
<td>Beta of the stock’s price</td>
</tr>
</tbody>
</table>

**Company Data Options**

The buttons at the bottom of the Company dialog box provide the following options:

<table>
<thead>
<tr>
<th>ITEM</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lock Basic Information</td>
<td>Select this option to keep data from being altered.</td>
</tr>
</tbody>
</table>
Update New Data Only  Select this option to only add new data when updating from an online data provider or datafile

## Yearly Data

<table>
<thead>
<tr>
<th>Year</th>
<th>Revenue (Mil.)</th>
<th>Pre-Tax Inc. (Mil.)</th>
<th>Net Inc. (Mil.)</th>
<th>Book Val. Per</th>
<th>Basic EPS</th>
<th>Dividends Declared</th>
<th>Market Price</th>
<th>Shares Outstanding</th>
<th>Long Term Debt</th>
</tr>
</thead>
<tbody>
<tr>
<td>1996</td>
<td>396.51</td>
<td>39.92</td>
<td>23.76</td>
<td>4.23</td>
<td>0.41</td>
<td></td>
<td>13.430</td>
<td>6.930</td>
<td></td>
</tr>
<tr>
<td>1997</td>
<td>624.53</td>
<td>65.00</td>
<td>38.51</td>
<td>4.85</td>
<td>0.53</td>
<td></td>
<td>16.000</td>
<td>9.750</td>
<td></td>
</tr>
<tr>
<td>1998</td>
<td>1139.12</td>
<td>106.36</td>
<td>63.11</td>
<td>5.22</td>
<td>0.63</td>
<td></td>
<td>15.875</td>
<td>10.750</td>
<td></td>
</tr>
<tr>
<td>1999</td>
<td>1642.22</td>
<td>145.54</td>
<td>92.41</td>
<td>6.17</td>
<td>0.83</td>
<td></td>
<td>25.875</td>
<td>11.188</td>
<td></td>
</tr>
<tr>
<td>2000</td>
<td>1952.54</td>
<td>166.00</td>
<td>114.40</td>
<td>7.17</td>
<td>1.03</td>
<td></td>
<td>26.500</td>
<td>15.500</td>
<td></td>
</tr>
<tr>
<td>2001</td>
<td>2063.86</td>
<td>220.76</td>
<td>143.24</td>
<td>9.75</td>
<td>1.23</td>
<td></td>
<td>38.840</td>
<td>16.312</td>
<td></td>
</tr>
<tr>
<td>2002</td>
<td>3062.32</td>
<td>371.16</td>
<td>244.63</td>
<td>15.87</td>
<td>1.78</td>
<td></td>
<td>57.050</td>
<td>35.100</td>
<td></td>
</tr>
<tr>
<td>2003</td>
<td>3787.21</td>
<td>494.35</td>
<td>316.98</td>
<td>18.24</td>
<td>2.21</td>
<td></td>
<td>56.560</td>
<td>32.700</td>
<td></td>
</tr>
<tr>
<td>2004</td>
<td>4106.39</td>
<td>570.91</td>
<td>370.06</td>
<td>20.23</td>
<td>2.65</td>
<td></td>
<td>57.960</td>
<td>42.100</td>
<td></td>
</tr>
<tr>
<td>2005</td>
<td>4351.16</td>
<td>641.07</td>
<td>406.79</td>
<td>22.67</td>
<td>3.12</td>
<td></td>
<td>61.230</td>
<td>45.810</td>
<td></td>
</tr>
</tbody>
</table>

### ITEM DESCRIPTION

- **Last 4 Quarters EPS**: Last 4Q earnings per share
- **Year**: Current year
- **Revenue (Mil.) $**: Revenue (Sales)
- **Pre-Tax Inc. (Mil.) $**: Pre-tax profit/Tax Rate (depending on options)
- **Net Inc. (Mil.) $**: Net profit after taxes
- **Book Value Per Share $**: Book value per share or common equity (depending on options selected)
- **Basic EPS $**: Earnings per share
- **Dividends Declared $**: Dividend amount
- **Market Price High $**: Highest recent market price
- **Market Price Low $**: Lowest recent market price
- **Shares Outstanding**: Number of shares outstanding
- **Long Term Debt $**: Long-term debt
### Company Data Entry Window

<table>
<thead>
<tr>
<th>ITEM</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cash Flow $</td>
<td>Total cash flow</td>
</tr>
<tr>
<td>User 1</td>
<td>Field for user-defined data</td>
</tr>
<tr>
<td>User 2</td>
<td>Field for user-defined data</td>
</tr>
<tr>
<td>User 3</td>
<td>Field for user-defined data</td>
</tr>
<tr>
<td>Add New Year</td>
<td>Add new year to company file.</td>
</tr>
<tr>
<td>Remove Year</td>
<td>Remove most recent year from company file.</td>
</tr>
</tbody>
</table>

### Quarterly Data

**PMG Monthly Prices**

<table>
<thead>
<tr>
<th>ITEM</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Date of Last FY</td>
<td>Jun/30/2005</td>
</tr>
<tr>
<td>Date of Last Quarter</td>
<td>Sep/30/2005</td>
</tr>
</tbody>
</table>

| Q2 FY 2004 (Dec 2003) | $597.88  | $0.56  | $124.30 | $79.45 |
| Q3 FY 2004 (Mar 2004) | 1009.43  | 0.70   | 145.04  | 37.54  |
| Q4 FY 2004 (Jun 2004) | 1062.45  | 0.76   | 152.69  | 101.31 |
| Q1 FY 2005 (Sep 2004) | 1046.18  | 0.72   | 150.65  | 34.37  |
| Q2 FY 2005 (Dec 2004) | 1227.29  | 0.73   | 153.83  | 96.31  |
| Q3 FY 2005 (Mar 2005) | 1063.30  | 0.81   | 152.59  | 105.49 |
| Q4 FY 2005 (Jun 2005) | 1214.39  | 0.87   | 174.00  | 111.60 |
| Q1 FY 2006 (Sep 2005) | 1510.92  | 0.78   | 155.42  | 99.23  |
| Q2 FY 2006 (Dec 2005) |         |        |         |        |
| Q3 FY 2006 (Mar 2006) |         |        |         |        |
| Q4 FY 2006 (Jun 2006) |         |        |         |        |
| Q1 FY 2007 (Sep 2006) |         |        |         |        |

### Quarterly Data

<table>
<thead>
<tr>
<th>ITEM</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Date of Last FY</td>
<td>Date of the company’s last fiscal year</td>
</tr>
<tr>
<td>Date of Last Quarter</td>
<td>The date of the last quarter on the SSG</td>
</tr>
<tr>
<td>Revenue (Mil.)</td>
<td>Total revenue of the company</td>
</tr>
<tr>
<td>Earnings Per Share</td>
<td>Earnings per share</td>
</tr>
<tr>
<td>Pre-Tax Inc. (Mil.)</td>
<td>Before tax profit/Tax rate (depending on options selected)</td>
</tr>
<tr>
<td>Net Income (Mil.)</td>
<td>After tax profit</td>
</tr>
</tbody>
</table>
Quarterly Data Options
The Update Q Data Only button adds the data for the most recent quarter from the SDS or other online data source.

PMG Monthly Price

<table>
<thead>
<tr>
<th>ITEM</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Monthly Prices</td>
<td>Prices for last 12 months and going back as far as 6 years</td>
</tr>
</tbody>
</table>
### Annual Report Data


#### Balance Sheet

<table>
<thead>
<tr>
<th>ITEM</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cash &amp; Equivalents</td>
<td>Recent Cash on hand</td>
</tr>
<tr>
<td>Marketable Securities and Investments</td>
<td>Liquid short-term securities on hand</td>
</tr>
<tr>
<td>Accounts Receivables</td>
<td>Current accounts receivable</td>
</tr>
<tr>
<td>Inventories</td>
<td>Current inventories</td>
</tr>
<tr>
<td>Total Current Assets</td>
<td>Current assets</td>
</tr>
<tr>
<td>Total Property, Plant &amp; Equipment</td>
<td>Fixed assets</td>
</tr>
<tr>
<td>Total Current Liabilities</td>
<td>Liabilities due within one year</td>
</tr>
<tr>
<td>Total Stockholders Equity</td>
<td>Equity owned by shareholders</td>
</tr>
<tr>
<td>Interest Coverage</td>
<td>Ratio by which earnings cover interest payments</td>
</tr>
</tbody>
</table>
### Consolidated Statement of Earnings

**ITEM** | **DESCRIPTION**
--- | ---
Cost of Goods Sold (COGS) | The cost of products or goods a company sells to generate revenue
Total Interest Paid on Debt | Interest expense on loans and other debt
**Statement of Cash Flow**

<table>
<thead>
<tr>
<th>ITEM</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Net Cash Provided by Operations</td>
<td>Cash from the company’s operating activities</td>
</tr>
<tr>
<td>Acquisition of Property, Plant &amp; Equipment</td>
<td>Amount of capital expenditures made by company</td>
</tr>
</tbody>
</table>
Notes

Enter your notes about the Company.

ITEM | DESCRIPTION
--- | ---
Notes | Enter your notes about the Company.
Options

The Options screen allows you to change data entry options.

In the Data Entry window labeled Options, the following items may be selected to suit the data that you have available.

**Currency Unit**

Set the units according to the size of company that you are studying. For large companies, with $10 Billion in sales or more, you may choose to select Billions as the unit. For small companies, choosing the Thousands unit will show you the greatest number of digits. Changing this selection will convert previously entered data to the new units selection.

**Currency Display**

You may set to display stock prices as a decimal or fractional figure. Note that selecting fractions will round the figure to the nearest 1/8 (one eighth) fraction.

**Pre-tax Income or Tax Rate**

This setting depends upon your source of information. If using numbers from annual reports, you will use pre-tax income. If using Value Line or Standard
and Poor’s, you will use tax rate. Changing this setting will convert previously entered data to the alternate data selection.

Note that Stock Analyst uses pre-tax income data for its calculations. If tax rate is entered, it is converted to pre-tax income before calculations are made. The relationship is as follows:

\[ \text{Pre-tax Income} = \frac{\text{Net Income}}{1 - \text{tax rate, expressed as a decimal}} \]

**Common Equity or Book Value per Share**

This selection depends upon your source of information. If using numbers from annual reports, you will likely use common equity. If using Value Line or Standard and Poor’s, you may use book value per share.

Note that Stock Analyst uses book value per share data for its calculations. If common equity is entered, it is converted to book value per share before calculations are made. The relationship is as follows:

\[ \text{Book Value per Share} = \frac{\text{Common Equity}}{\text{Common Shares}} \]

**Colors**

You may choose the colors for highlighting certain data by clicking on the boxes.

**User Data Items**

You may enter up to three different series of historical data in the Annual Data screen, and label those series here. For instance, for a REIT, you might choose to enter Funds from Operations per Share as an additional metric by which you can analyze the company.

For each item, select whether or not it uses currency units.

These values can be displayed on the Trend Graph.
6: Comparisons

Comparisons help you quickly and easily review important differences in companies’ stocks. The List Panel sidebar provides two comparison types, the Stock Comparison Guide and the Challenge Tree Comparative Form.

Comparisons Sidebar

The Comparison Sidebar consists of three parts:

<table>
<thead>
<tr>
<th>ITEM</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>‘Comparisons’ bar</td>
<td>Select the Comparisons bar to cause the Comparison Sidebar to appear.</td>
</tr>
<tr>
<td>The drop-down list</td>
<td>The drop-down list contains three items “All Comparisons”, “Stock Comparison Guides” and a “Challenge Trees”. Selecting one from the drop-down list causes the comparison listing below to display only those kinds of comparisons. The selected name moves to the window after being selected. “All Comparisons” is the default</td>
</tr>
</tbody>
</table>
ITEM | DESCRIPTION
---|---
upon start of the program. Comparisons have a white background display and Challenges have a yellow background.)

The comparison listing Selecting a comparison name with a single left-mouse button click will cause the appropriate comparison to be displayed in the viewing area. It is possible to have multiple comparisons open in the viewing area.

### Stock Comparison Guide

<table>
<thead>
<tr>
<th>SCG Report</th>
<th>SCG Graph</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Stock Comparison Guide</strong></td>
<td>Prepared by 10Club User</td>
</tr>
<tr>
<td>Date 24 Sep 2003</td>
<td></td>
</tr>
</tbody>
</table>

#### GROWTH COMPARISONS
(From Section 1 of the NAIC SSG)

<table>
<thead>
<tr>
<th>NAME OF COMPANY</th>
<th>DOLLAR GENERAL</th>
<th>FAMILY DOLLAR</th>
<th>KOHLS</th>
<th>TARGET</th>
</tr>
</thead>
<tbody>
<tr>
<td>(1) Historical % of Sales Growth</td>
<td>20.7</td>
<td>14.4</td>
<td>24.7</td>
<td>9.5</td>
</tr>
<tr>
<td>(2) Projected % of Sales Growth</td>
<td>20.0</td>
<td>14.4</td>
<td>20.0</td>
<td>9.5</td>
</tr>
<tr>
<td>(3) Historical % of EPS Growth</td>
<td>18.5</td>
<td>17.4</td>
<td>30.3</td>
<td>21.7</td>
</tr>
<tr>
<td>(4) Projected % of EPS Growth</td>
<td>18.5</td>
<td>17.4</td>
<td>20.0</td>
<td>18.0</td>
</tr>
</tbody>
</table>

#### MANAGEMENT COMPARISONS
(From Section 2 of the NAIC SSG)

<table>
<thead>
<tr>
<th>NAME OF COMPANY</th>
<th>(A) Trend</th>
<th>(B) Trend</th>
</tr>
</thead>
<tbody>
<tr>
<td>(5) % Profit Margin Before Taxes (Average for last 5 years)</td>
<td>7.4</td>
<td>8.0</td>
</tr>
<tr>
<td>(6) % Earnings on Equity (Average for last 6 years)</td>
<td>22.3</td>
<td>19.7</td>
</tr>
<tr>
<td>(7) % of Common Owned by Management</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

#### PRICE COMPARISONS
(See Sections 3-5 of the NAIC SSG)

<table>
<thead>
<tr>
<th>NAME OF COMPANY</th>
<th>Estimated Total EPS For Next 5 Years</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>8.42</td>
</tr>
</tbody>
</table>

You can compare up to 5 companies’ performance with a Stock Comparison Guide. Select Comparison and Stock Selection Guide from the New menu to create a new Stock Comparison Guide. The program creates a guide using data from your database and data you entered in the Companies Data Entry Window. The SCG Report shows statistics comparing the two companies; the SCG Graph, which you can access by clicking on the ‘SCG Graph’ option on the top bar, shows the comparisons in graphical format.
Comparison Guide Options

Right-click on the guide to select an option.

*Edit Details* for changing name, description and date of report.

*Show judgment* displays or resets the ‘best’ selections to the way Stock Analyst would select them.

*Refresh data* updates the data of the company if you have done any data entry.

*Clear all judgment* clears all judgment from the screen.

Stock Comparison Guide Graph

The SCG Graph allows for a comparison of financial metrics across all companies being compared. It’s an excellent way to judge trends across several companies being suggested for investment. You can adjust the scale of an individual company in the bottom right corner, and select the various financial metrics on the right hand column.
The Challenge Tree compares two companies, with the emphasis on their future prospects. Use it to determine which has the greater potential. You can compare an existing holding with a potential purchase. The objective is to challenge a portfolio holding with a company whose future prospects are better while maintaining or improving the quality of your portfolio.

Select Challenge Tree from the Comparisons menu, and select two companies to compare.

**Judgment Area of Challenge Tree**

Scrolling down will take you to areas where you can add/edit judgment, starting at Challenge Tree Date. This area allows you to describe future expectations of the two companies.

You can enter or edit your judgments in some of the fields in the upper section of the Challenge Tree. The Earnings Advancing, Business Cycle Upswing, Industry Outlook, Growth Stock Potential, and New Products Coming In fields allow you to enter text when you click them with the New Value dialog box. When you click on an existing value, the following box appears to allow you to edit the value.
You may wish to evaluate the financial risk or reward from selling one company to buy another. Use the **Cost of Switching** window for this assessment.

**Challenge Tree Options**

*Edit Details* allows you to change the description of the current challenge.

*Cost of Switch* opens a tool to allow you to compare the opportunity cost of selling a stock and buying the substitute stock, with taxes and total return potential built into the calculations.

*Reset Selection* changes the ‘best’ selections to the way Stock Analyst would select them.

*Refresh Data* is used for retrieved Comparison reports. This function updates items for the companies in the list based on new study information. Judgment items are reset to conform to the new data.

*What’s This?* opens a window with additional help.

**Sorting Companies**

One method of assessing your portfolio is to line up all of the companies in the database and compare them across various financial and corporate metrics. To use the Sort Companies function, go to the View menu and choose Sort Companies, or click the Sort Companies button the Stock Analyst main toolbar.
Click on the column title to sort the list of companies by that criterion.

**Alerts**

You can set color-coded alert levels for the various stocks using the ‘Alert’ button in the top left corner.

**Cost of Switching**

This function calculates the financial consequences of a sale.
The company to be sold is indicated in the portfolio. You can select a company from the database as the replacement stock.

Note the time required for the new company to be equal in value to the original. Taxes and commissions play a big part in how quickly this occurs. Of course, there are other considerations to evaluate in the decision to switch. For example, how good are the prospects of the new company compared to the one being sold?

To view the cost of switching, right-click from the Challenge Tree section. Enter values for the new stock and select Calculate to view the cost of switching.

<table>
<thead>
<tr>
<th>ITEM</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stock Value $</td>
<td>The value of the stock you propose to sell. This is automatically filled for the company you highlighted in the portfolio.</td>
</tr>
<tr>
<td>Total Return %</td>
<td>The return of the company being sold (capital gains and dividends). This is derived from your SSG analysis.</td>
</tr>
<tr>
<td>Gain $</td>
<td>The current gain from when you bought this company.</td>
</tr>
<tr>
<td>Taxes%</td>
<td>% to be paid as a result of capital gains made</td>
</tr>
<tr>
<td>Expenses %</td>
<td>Commission, % of proceeds from sale</td>
</tr>
<tr>
<td>Total Return %</td>
<td>Total return of the purchased company. This is derived from your SSG analysis.</td>
</tr>
<tr>
<td>Price $</td>
<td>Stock price at which you will buy the company</td>
</tr>
<tr>
<td>Expense %</td>
<td>Commission, % of purchase cost</td>
</tr>
</tbody>
</table>

The crossover point in the graph (if any) will be the point when the purchased stock will provide a better contribution to your portfolio than if you had held the previous stock. The calculation takes into account tax payable on any capital gain resulting from the sale and brokerage costs for both buying and selling.
7: Portfolios

Portfolios allow you to track your stocks as a percentage of your total portfolio as well as the gain or loss to date of each stock as a percentage and as a dollar amount. The Portfolios Summary section also shows the percentage gain of the portfolio as a whole. You may graph the allocation of your portfolio in a pie chart.

Using Portfolios

Portfolios keep track of holdings and growth (capital appreciation only) for individual stocks and the portfolio as a whole. The Portfolios feature is not a substitute for portfolio accounting or recordkeeping.

You may set up portfolios to include both stocks that you own as well as stocks that you wish to follow. For example, you may set up a portfolio of companies you might like to own in the future (a hot list), or a portfolio of stocks you are considering selling (a hit list).

A Portfolio can be defined as any group of companies, which share some common attribute.

Any changes made to a company study will not be reflected on an already opened Portfolio window. Changes must be saved first in the Companies window, followed by a redisplay of the Portfolio window.

Portfolios Sidebar

The Portfolio Sidebar consists of two parts:

<table>
<thead>
<tr>
<th>ITEM</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Portfolio Bar</td>
<td>Select the Portfolio Bar to cause the Portfolio Sidebar to appear in the List Panel by sliding up or down as appropriate. This is the default upon start of the program.</td>
</tr>
</tbody>
</table>
Portfolios

The portfolio list displays your portfolios. In a new installation, a sample portfolio is provided.

Selecting a portfolio name with a single left-mouse button click will cause a portfolio to be displayed in the viewing area.

It is possible to have multiple portfolios open.

### Portfolio List

<table>
<thead>
<tr>
<th>Portfolio Name</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Company Name</td>
<td>Name of the company</td>
</tr>
<tr>
<td>Last Updated</td>
<td>Date that the SSG was last updated</td>
</tr>
<tr>
<td>Currency</td>
<td>Currency, for foreign currency translation</td>
</tr>
<tr>
<td>No Shares</td>
<td>Number of shares held (3 decimal digits)</td>
</tr>
<tr>
<td>Buy Date</td>
<td>Date when shares were purchased</td>
</tr>
<tr>
<td>Buy Price</td>
<td>Price of shares when purchased (include costs if you like, but be consistent)</td>
</tr>
<tr>
<td>Current Price Date</td>
<td>The date of the last known price</td>
</tr>
<tr>
<td>Current Price</td>
<td>Current price</td>
</tr>
<tr>
<td>Gain</td>
<td>Gain in value from purchase price to date</td>
</tr>
<tr>
<td>Value</td>
<td>Value of shares, with currency translation if applicable</td>
</tr>
<tr>
<td>%Portfolio</td>
<td>% of this holding to the total portfolio value</td>
</tr>
</tbody>
</table>
Edit or Add a Company

To add a company to a portfolio, use the button in the bottom left corner called Add to Portfolio, or right click in the portfolio screen and select Add New Entry.

To edit a company, right-click on the company and choose Edit Entry, or highlight any part of a row and click the Edit Portfolio Entry button at the bottom of the screen. Companies added to the portfolio must already be in the database and have completed SSGs.

![Edit portfolio company dialog box]

The Add and Edit dialog boxes have the following fields:

<table>
<thead>
<tr>
<th>ITEM</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Company Name</td>
<td>Name of Company. To select from companies in the database, scroll through the list. Press ENTER to select the highlighted company.</td>
</tr>
<tr>
<td>Number of Shares</td>
<td>Total number of shares of this company in the portfolio</td>
</tr>
<tr>
<td>Buy Date</td>
<td>Purchase date (DD/MM/YYYY)</td>
</tr>
<tr>
<td>Buy Price</td>
<td>Price paid to purchase. Include or exclude brokerage fees for all companies. Be consistent.</td>
</tr>
<tr>
<td>Last Updated</td>
<td>Last date for which data was entered for this company (DD/MM/YY). This is inserted from your database and it indicates the timeliness of your analysis.</td>
</tr>
<tr>
<td>Currency</td>
<td>Select from displayed list or type in country name.</td>
</tr>
<tr>
<td>Current Price Date</td>
<td>The last known current date</td>
</tr>
</tbody>
</table>
Current Price  Current stock price. This will be inserted from your database.

Buy exchange  The exchange rate for non-US currency at the time of purchase

Current exchange  The current exchange rate for non-US currency

Use the Tab key or a mouse click to move amongst cells. Enter or change the data and click OK

Once completed and saved, Stock Analyst will add the company to the portfolio. The program calculates other data in the portfolio report.

Remove

To remove the company from the portfolio, right-click a company and select Remove Entry, or highlight any part of that company in the portfolio and click the Delete from Portfolio button at the bottom of the screen.

Analysis

The analysis view of the portfolio screen lists the companies in a portfolio by characteristics found in their SSGs. These include Company Name, Capitalization, Revenue, Sector, Industry, Estimated EPS Growth %, P/E, Average 5-Year P/E, Up-side Down-side Ratio, Relative Value, Projected Average Return, Projected Total Return, PMG Indicator and PEG Ratio.

Alerts

You can set color-coded alert levels for the various stocks using the ‘Alert’ button in the bottom left-hand corner. Values are then flagged in the Portfolio Analysis view to draw you attention to items that may require attention, with pink shading used to represent critical alerts and yellow shading to represent warning alerts.
The Portfolio Evaluation Review Technique Report is a report designed to help you evaluate your entire portfolio. It compares financial metrics across all the stocks held in that specific portfolio.

### Diversification

The Diversification window arranges your holdings by revenue, market capitalization, sector or currency. This helps you to assess the balance of your portfolio by these various criteria.

Note that when you have companies with more than one currency in your portfolio, the value of the foreign companies will be translated according to the exchange rate that you have set within your portfolio.

If a column is too narrow to read, simply make it wider with your cursor, as
in a spreadsheet program.

**Portfolio Summary Groupings**

When grouping your companies according to market capitalization or revenue, you can define the size for the companies. For example, the “market cap” of a small company may be defined as less than $10,000 million and a large company as more than $20,000 million. Market capitalization is defined as the number of shares times the share price.

Click the Diversification button to open the Portfolio Summary Groupings dialog box where you can select group summary categories. The Diversification window then displays companies grouped corresponding to your selection and with summary information for each group.

When grouping by sector, you must have entered the sector definition for each company in the Company Data window.
The Edit Portfolio dialog box allows you to edit your portfolio information such as portfolio name and owner. This is the same dialog box you use when setting up a new portfolio. Right click on the Portfolio Summary or Analysis screen and select Edit Portfolio to access this feature.
Diversification Graph

The Grid button (in the same place as the graph button) allows you to switch back to the rows and columns view of the data.
Finding companies to study and what data to use is the first challenge of stock study. Using electronic data sources eases the burden of data compilation and entry.

Finding Companies to Study

Finding investing ideas may be a challenge. Here are some suggestions for finding companies to study.

1. Consider companies whose products or services you use and admire.
2. Check out business and financial publications: Wall Street Journal, Barron’s, Forbes, Business Week, Fortune, etc.
3. For the cost of a subscription, advisory services provide opinions about companies that they believe offer worthwhile growth potential for their clients. The Investor Advisory Service provides monthly recommendations using the Stock Selection Guide that may also be useful. (More info on IAS at: www.iclub.com/ias/)
4. Your friends and business contacts may provide ideas about opportunities within your city or state.
5. Your broker can offer many suggestions as a starting point for your stock studies.
6. The Internet is another source of ideas. However, beware hype and do your homework.
7. A screening program such as Stock Prospector (www.iclub.com/prospector/) can be used to filter companies out of a large database, according to your particular criteria.
8. ICLUBcentral’s web site for a list of stock ideas for study: www.iclub.com.
Where to Find Data

Data is available from several sources. Eventually you will settle on a preferred source that meets your objective for timeliness, accuracy, convenience, and cost.

Data from most commercial sources is generally quite accurate. However, various sources may generate data in different ways, resulting in different numbers for the same data, particularly earnings per share. Differences are mostly due to the accounting methods used by the company gathering the data. This can confuse beginning investors.

To ensure the proper basis for analysis, be sure to use the same data source for all data within each stock study. With increasing knowledge, you will be able to discern the subtleties in data sources and settle for the one that accounts for data in the manner that you like.

Datafiles

Datafiles are an electronic method of supplying data for Stock Analyst. They provide data not only for Stock Selection Guide reports but also for the PMG and PERT. They are convenient, inexpensive, and allow you to work more effectively by concentrating on the company rather than finding, gathering, and entering data. Your time is spent where it counts in assessing stocks.

Link with a Stock Data Service

Stock Analyst allows importing of company data from the internet if you have a subscription to the S&P Stock Data Service. To import data from the service, you must first set up the configuration within Stock Analyst. To do this, go to the Options menu and choose Preferences. Enter your User ID in the “E-mail address field” and password in the password fields (they are shown below circled in red), and click OK. (Note: Your password for the Stock Data Service comes from BetterInvesting.)
Importing a Company from S&P Stock Data Service

Once you have linked your program to an account with the S&P Stock Data Service, you can download company information automatically into Stock Analyst (you must be connected to the internet to do so).

Stock Data Service Quick Access

Use the Retrieve Company box in the sidebar to access quickly the S&P Stock Data service datafiles by typing an appropriate ticker symbol in the box, then selecting “Go”. The program will check for error conditions such as an incorrect symbol, incorrect user ID and/or incorrect password.
**Stock Data Service Menu Access**

Go to the Open company window. You can get to this window by using the File menu and choosing Open | Company.

**Stock Data Service Open Company Window**

Once you are at the Open Company window, click on the tab that says Import NAIC OPS Datafiles (shown below in red). (Note: the BetterInvesting S&P Stock Data Service was formerly called Online Premium Services, OPS. The menus in Stock Analyst refer to it by the former name.)

If there are no companies listed, click on the Get Current Index button in the lower right corner. This will update the list of companies in the index to the most recent Stock Data Service version. (You may wish to update the index of stock names and ticker symbols periodically, as well.) You can see the last date you downloaded the index next to the Index Date text on this window.

To import a company, select either the stock symbol or the company by scrolling to it, highlighting it and selecting OK. You can get to a company faster by typing the name or symbol into the appropriate field. Once you have found the company you seek, click OK to import the data.
Importing Datafiles

Using datafiles allows you to spend time evaluating stocks instead of typing in data. Companies may be imported into Stock Analyst in the SSG or SDF format.

To import/open a company from a datafile, select File | Open | Company from the menu. Click the window tab called “SSG and SDF Datafiles.” Select the drive and directory where the files are located. Type in the ticker symbol or highlight the file from the list. The name of the company will appear at the bottom left corner. Click OK to open the file.

To import SDF (Stock Analyst Datafiles), select the SDF format in the List Files of Type. SDF files can be exchanged with other Stock Analyst, Investor’s Toolkit 5 and Classic Plus users. Locate the directory where the SDF files reside and import them in the same way as the SSG files.

File Association

When Stock Analyst is first installed, it sets up file association links within Windows. This means that you can double-click on an SDF or SSG file and it will open into Stock Analyst. If Stock Analyst is not running, it will start
automatically and load the desired file.

This file association also opens SSG and SDF files from the Internet. You can set or reset file association from the Options | Preferences | File Associations menu item.

**SSG File**

SSG formatted files are a standard for sharing stock studies and data. You will typically see such a file with the extension SSG after the ticker symbol. (Example: MCD.SSG) These files contain yearly, quarterly, and company information for a complete company study. Use this format to exchange company data with individuals who use other ICLUBcentral software.

**SDF File**

SDF formatted files are a file format common to Stock Analyst 3, Investor’s Toolkit 5 and Classic Plus. These files contain complete information for company analysis, and they can be exchanged seamlessly with other current ICLUBcentral software programs. The SDF formatted files are the recommended means for exchanging data.

**PRC and CSV files**

These files are normally retrieved from the Internet. They provide information for updating prices in the Stock Analyst database. The extension for these files will be either PRC or CSV.

**Publications**

Data from the following sources needs to be collected and keyed into Stock Analyst. Much of the annual report data that Stock Analyst requires for its Balance Sheet Analysis tool is **not available** through the S&P Stock Data Service, and so must be input by hand.

**Each company** publishes annual and quarterly reports. These will be sent to you at no charge upon request. The annual report is a glossy document that explains the financial results of the past year, highlights changes, presents information about the company’s products, and may give an outlook for the next year.

Company reports are not structured as the SEC (Securities Exchange Commission) 10K and 10Q reports. Financial data may seem intimidating at first because of the accounting terminology, but over time, you will become familiar with certain key concepts.

**Subscription services** such as The Value Line Investment Survey and Standard and Poor’s sheets may be purchased or viewed at your library or broker. They provide the historical information needed for stock analysis. (There are sample pages for view later in this chapter.) They also provide company ad-
dress information so that you may contact a company directly and ask for an investor information package.

The Value Line Investment Survey (containing over 3400 U.S. companies) seems commonly used as it is found in many libraries. Each company’s data is found on a single page, with an analyst’s summary advisory. There is usually also a summary for each industry.

**Quantity of Data**

If you cannot find sufficient information about a company, move on to another one. It is not wise to make decisions based on incomplete information.

Financial data for a company may vary, depending on its source. The differences are due to the interpretations that security analysts may perform in order to gauge a company’s income from ongoing operations (a process known as “normalization”). This is why it is important not to mix data sources when doing a company study.

**Internet**

Data from the Internet may be accumulated and entered manually in the Stock Analyst program. Sources for company information include:

The **government’s SEC Edgar site** contains a database of listed companies (SEC = Securities and Exchange Commission) where you may access a company’s filings (www.sec.gov). There are commercial services that provide access to SEC’s data in an easy-to-use fashion.

Quarterly reports are called Form 10Q by the SEC, while annual reports are called Form 10K. These reports contain useful financial information plus descriptions of the company’s business. They are more detailed than the reports issued by the company to shareholders.

An 8K Report is required by the SEC within 15 days of an event that could affect the value of the company’s securities.

A 13D Report is required by the SEC from an investor who acquires 5% or more of a company’s stock. This alerts the company and its shareholders that someone may be trying to gain control of outstanding shares.

A **company’s web site** may be directly accessed from Stock Analyst. You may need to enter the URL (web site address) in the company data entry screen in order to access it from the View | Company/Favorite Web Sites menu item or the Company/Favorite Web Sites button on the toolbar. Most companies include a financial information section from which you may retrieve annual and quarterly report data. News releases will announce significant events such as an acquisition or sales of a division or the introduction of a new product.
Companies may answer your questions by e-mail or telephone. Alternately, they will send you information by mail.

For company data that can be imported into Stock Analyst, you may download SSG and SDF files. You can click on these files and directly load them into Stock Analyst. When data has been offered by other investors, you are advised to verify the accuracy of this data before making an investment decision.

Your brokerage firm may offer information on its web site about stocks, as well.

### Internet Access

Stock Analyst accesses the Internet through the View | Company/Favorite Web Sites menu item. You may also connect through the Internet Tab in the Prompt Window.

In either case, you can choose from existing sites or add new ones. Click the Add Site button to type in a new site name and its Internet address.

To add the address of a company site, go to the Company icon (or group) and highlight the generic title (Company Web Site). Click the Edit Site button to type in the company name and Internet address.

Company information is available from a number of sites. Highlight the site of interest and click the GO! button to start your Internet browser program and automatically access the site.

Be careful when editing pre-defined company web sites. Stock Analyst uses a special field to represent ticker symbols in web site URLs (addresses). You can add links to other web sites if those sites use a stock’s ticker symbol in the URL. Click the Add Site button in the Favorite Web Sites dialog box, select Company from the Group field, type in the Site Name, copy the URL from your browser and then paste it into the Internet URL field. Finally, replace the specific ticker symbol in the URL with <symbol> to allow the same link to be used for any stock in your database. For instance, to add a link to Yahoo! Finance’s company news page, do not use:

```
http://finance.yahoo.com/q/h?s=MSFT
```

Instead, use:

```
http://finance.yahoo.com/q/h?s=<symbol>
```

In this way, you can add convenient links that you can access for any company as you study it in Stock Analyst.

For multiple stock price quotes from Yahoo! Stock Analyst generates a ticker list from companies in your database.

Stock Analyst includes two groups: Company and Favorites. Of special note
is the ICLUBcentral site for product support and additional information. The Yahoo! site is set to retrieve prices individually or for all companies in your database.

**Updating**

Once a study is completed, you will need to keep it current as new information becomes available. There are 3 different times that you should consider updating a study.

1. Monthly, with price information. (Do this prior to your club meeting or to reassess your holdings.)
2. Quarterly (every 3 months), when new quarterly information is released by the company
3. Annually, when new annual figures are released by the company.

Updating can be done fairly quickly if you do it regularly. After each update, you should review your initial stock study and assess whether the results meet your expectations.

Be consistent with the source of information you use for updating. Updating original data with data from another source (annual reports, Value Line, S&P, etc) can make your study inaccurate.

**Price Updating**

Price updating can be done either through the keyboard, via a CSV price file or automated through the Internet.

**From the Internet**

Price updating is available through the Internet and is accessed from the Update Company Prices window in Stock Analyst. Select File | Update | From Price Files from the top menu.
Select the companies you wish to update (or ‘Select All’) then select the Internet Prices Update Location and click Download Prices to download prices over the Internet.

**From a CSV price file**

Use the Local Price file option when you do not have an Internet connection and have a file containing stock prices that has been exported from another program. The file should be in comma separated text format (CSV) with the symbol, price, and date included for each company.

Setup allows you to specify the format for the CSV price file. Please be aware that Internet sources may change the availability of data and their format.

**From the Keyboard**

The information in the Update Company Prices window can be edited from the keyboard. Enter the new prices for the companies. Click the Start Update button. A report of new high or low prices will be shown in the Alert column.

To simplify entering prices, you may sort information by clicking on a column title. Clicking a second time will reverse the sort order. Sorting by exchange will make it more efficient to update prices from a newspaper.

You may size columns to fit the information. Drag the edge of the column header to the desired size.
Quarterly and Yearly – from Datafiles

Whenever new Datafiles become available, new company information is likely available. Use the File | Update | Company Data window to select the companies to update.

You may sort the company information in ascending or descending order by clicking on the column title.

If you choose to update from the S&P Stock Data Service, make sure that you do not update from other sources. Mixing sources of data can create inconsistencies and make your study inaccurate.

If you update in this manner, we recommend that you select Full Update. This ensures that all data is updated to reflect any restatements, preliminary to final adjustments, stock splits, etc. This ensures keeping some consistency in your company data.

Updating does not alter judgment settings as you may have set in each report.

Updating Manually

Manual updating of company data is done in the Data Entry window for the company. To open a Data Entry window, select a company in the Companies sidebar and select the Data Entry button in the Company window.

Yearly Updating

For a yearly update, the “Add New Year” button adds new data at the end of the last fiscal year. Click this button to clear a row for the new data. Data for the previous tenth year is removed from the database when the data is saved.

After yearly updating, you should redo your study to assess the newly reported information. Redraw your trend and projection lines on the SSG Graph, etc. as if you are doing a new study.

Quarterly Updating

To add a new quarter of data, click the Add new quarter button in the Quarterly Data tab. It makes space for new data. After adding new quarterly information, review the study to see how the latest results meet the growth and value objectives you set in your original study.

You can also add new information to the Notes section of the Data Entry window.

Share Splits

Occasionally directors of a company may order a stock split to make shares more affordable for investors. For a company you have saved in your database, you will need to account for this split.
Go to the menu line item Options, Issue Share Split. Enter the number of old and new shares, depending on the announced split. Examples:

2 for 1 split: enter 1 old share, 2 new shares
3 for 2 split: enter 2 old shares, 3 new shares
10% stock dividend: enter 100 old shares, 110 new shares

The value of your holding before and after the split is the same. (For more details, see Share Split in the Glossary.)

Generally, a share split is a neutral event for the company. There may be a brief increase in price after the stock split is announced but this is neutralized soon after.

**Saving Data**

Normally a company study or comparison is saved in the Stock Analyst database. See the section on Sharing Data for saving to a diskette or to another directory on your computer.

You may save both company data and comparison data. If data was derived from the Stock Analyst database, then the Save command will save the data back to the same record. If the data is new, a new record will be entered in the database.
Both a company name and a company symbol are needed before you can save a company. Saving a Comparison Guide requires both a name and a description.

**Save As – for alternative studies**

The Save As function stores the company or comparison in a new record. Create a new record to save a variation of a study or comparison. Make sure to rename the new company record so that it is meaningful to you.

Reasons to save multiple records are:

1. saving original studies (see below)
2. saving studies using optimistic and pessimistic judgments
3. saving an updated company study
4. saving a comparison with updated information

**Original Studies**

Save a copy of your original stock study. Add an identifier to the company name such as “Orig.” for original, i.e. Microsoft – Orig.

To ensure that the price and data are not changed through automatic updating, you should also alter the company symbol to include -O, i.e. MFST-O. Lastly do a Save As to save the company in the database.

Use the study to “learn from your experience” when later reviewing judgment decisions made about the company.

**Multiple Studies of the Same Company**

Often members of a club will study the same company. Have each member add initials to his/her study’s company name, i.e. Microsoft CM. You may do a Comparison Guide of these studies by importing the files (in SDF format) into Stock Analyst. (See below for details on sharing.) You can then compare the members’ stock studies. The Comparison Guide can be saved for future reference.

This technique could also be used to compare two studies for the same company, i.e. an optimistic and a pessimistic study.

**Sharing Data**

Users may want to share data with others, especially if all are members of a club. To facilitate sharing, Stock Analyst includes data exporting functions through the Option | Backup/Restore menu items for the entire database which might also include personal information. To export individual stocks use File | Export.
Save As SDF Format

The SDF (Stock Analyst) format is recommended for exchange between users of Stock Analyst 3, Investor’s Toolkit 5 and Classic Plus. This format incorporates all data and judgment so that the receiver can reconstruct the original study.

Use this format also for archival purposes, to save data for companies that you are not currently following but want to retain for future reference.

Save As SSG Format

The SSG format is suitable for exchange with users of programs other than Stock Analyst that do not support the SDF Format. This might include users of older versions of Stock Analyst, Investor’s Toolkit, and Classic or Classic Plus. The SSG format does not support all the data used in Stock Analyst but it is sufficient to allow others to do analysis without re-entering data.

Exporting and re-importing data in the SSG format will not re-establish all data as used in Stock Analyst. Stock Analyst uses data not included in the SSG format and vice versa.
Data Sheets

Standard and Poor’s Data – Page 1

(Reprinted with permission.)
McDonald’s Corporation

Business Summary - 10-FEB-99

One of the most widely known brand names in the world, McDonald’s boasts thirty-five million customers every day. The company operates and licenses more than 23,000 restaurants in over 100 countries. At December 31, 1997, there were 12,480 restaurants in the U.S. and 10,752 elsewhere.

Contributions by geographic area in 1997: U.S. (51% of revenues); Europe (23%); Asia/Pacific (17%); Latin America (4%); and other (5%). International business contributed 51% of operating income in 1997.

Restaurants offer a substantially uniform menu, including hamburgers, french fries, chicken, fish, specialty sandwiches, beverages and desserts. Most units also serve breakfast.

The company’s long-term strategy is to identify and to evaluate profitable growth opportunities. The company believes that its greatest expansion opportunities are outside the U.S. While in the U.S. there are 22,000 people per McDonald’s, in the rest of the world there is only one McDonald’s for every 605,000 people. At the end of 1997, 85% of systemwide restaurants were in the following 11 markets - Australia, Brazil, Canada, England, France, Germany, Hong Kong, Japan, the Netherlands, Taiwan and the U.S. Some 64% of restaurant additions in 1997 were in these markets and a similar percent is expected in 1998. New and emerging markets, such as Central Europe, the Philippines, China and Africa/Middle East, should represent a growing percentage of restaurants. Rapid expansion is expected to continue in Latin America.

The company owns or leases a substantial amount of the real estate used by franchisees in their operations. Fees from franchisees to McDonald’s typically include rents and service fees, often totaling at least 11.5% of sales.

Average annual sales at U.S. restaurants in operation at least 13 months declined slightly to $1,425,000 in 1997. Average sales are affected by comparable sales, the size of new restaurants and the expansion rate. New restaurants have historically taken about four years to reach long-term volume. Average annual sales at international restaurants in operation at least 13 months fell $327,000 to $1,830,000. Nearly half of this was due to foreign currency translation, and 30% to more satellite restaurants, which typically have lower sales volumes than traditional restaurants. Average sales also tend to lower with more units opened in lower-density areas.

U.S. company unit margins were flat with 1996 at 16.5% of sales. Margins in the international division declined in 1997, to 19.1% of sales, from 19.8% in 1996. Increased food and paper costs as well as occupancy and other operating costs as a percentage of sales outweighed a decrease in payroll costs.

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Cash Flow</td>
<td>NA</td>
<td>3.42</td>
<td>3.28</td>
<td>3.04</td>
<td>2.57</td>
<td>2.15</td>
<td>1.98</td>
<td>1.81</td>
<td>1.72</td>
<td>1.50</td>
</tr>
<tr>
<td>Earnings</td>
<td>2.20</td>
<td>2.29</td>
<td>2.21</td>
<td>1.68</td>
<td>1.46</td>
<td>1.30</td>
<td>1.18</td>
<td>1.10</td>
<td>0.97</td>
<td>0.87</td>
</tr>
<tr>
<td>Dividends</td>
<td>0.35</td>
<td>0.32</td>
<td>0.29</td>
<td>0.26</td>
<td>0.23</td>
<td>0.21</td>
<td>0.20</td>
<td>0.18</td>
<td>0.17</td>
<td>0.15</td>
</tr>
<tr>
<td>Payout Ratio</td>
<td>16%</td>
<td>14%</td>
<td>13%</td>
<td>13%</td>
<td>14%</td>
<td>15%</td>
<td>15%</td>
<td>15%</td>
<td>15%</td>
<td>15%</td>
</tr>
<tr>
<td>Prices - High</td>
<td>79%</td>
<td>54%</td>
<td>54%</td>
<td>48%</td>
<td>31%</td>
<td>29%</td>
<td>25%</td>
<td>20%</td>
<td>19%</td>
<td>17%</td>
</tr>
<tr>
<td>Prices - Low</td>
<td>44%</td>
<td>42%</td>
<td>41%</td>
<td>28%</td>
<td>25%</td>
<td>22%</td>
<td>19%</td>
<td>13%</td>
<td>12%</td>
<td>11%</td>
</tr>
<tr>
<td>PYE Ratio - High</td>
<td>36</td>
<td>24</td>
<td>25</td>
<td>24</td>
<td>20</td>
<td>19</td>
<td>17</td>
<td>18</td>
<td>16</td>
<td>15</td>
</tr>
<tr>
<td>PYE Ratio - Low</td>
<td>20</td>
<td>18</td>
<td>19</td>
<td>15</td>
<td>15</td>
<td>14</td>
<td>13</td>
<td>12</td>
<td>11</td>
<td>11</td>
</tr>
</tbody>
</table>

Income Statement Analysis (Million $)

| Revs.              | 11,409| 10,687| 9,795| 8,321| 7,408| 7,133| 6,895| 6,460| 6,065|
| Oper. Inc.         | 3,488 | 3,331 | 3,204| 2,801| 2,345| 2,290| 2,022| 1,931| 1,877|
| Dept.              | 794   | 743   | 739  | 629  | 497  | 493  | 457  | 444  | 396  |
| Int. Exp.          | 363   | 365   | 365  | 326  | 336  | 393  | 418  | 417  | 332  |
| Pretax Inc.        | 2,408 | 2,251 | 2,169| 1,887| 1,676| 1,448| 1,299| 1,246| 1,157|
| EBT Tax Rate       | 32%   | 32%   | 34%  | 35%  | 35%  | 34%  | 34%  | 38%  | 37%  |
| Net Inc.           | 1,643 | 1,573 | 1,427| 1,224| 1,083| 929  | 860  | 802  | 727  |

Balance Sheet & Other Fin. Data (Million $)

| Cash               | 341   | 330   | 335   | 186   | 437   | 220   | 143   | 137   |
| Curr. Assets       | 1,142 | 1,103 | 956   | 741   | 663   | 685   | 549   | 495   |
| Total Assets       | 18,242| 17,386| 15,415| 13,592| 12,035| 11,681| 11,349| 10,668| 9,175|
| Curr. Liab.        | 2,985 | 2,135 | 2,096 | 2,451 | 2,102 | 1,545 | 1,268 | 1,199 | 1,017|
| LT Debt            | 4,834 | 4,803 | 2,952 | 2,491 | 4,287 | 4,267 | 3,901 |
| Common Eqty.       | 8,851 | 8,360 | 7,503 | 6,446 | 6,350 | 5,884 | 4,537 | 3,984 | 3,349|
| Total Cap.         | 15,178| 15,251| 12,784| 10,930| 10,744| 9,911 | 8,937 | 8,064 | 7,561|
| Cap. Exp.          | 2,111 | 2,375 | 2,064 | 1,539 | 1,354 | 1,171 | 1,299 | 1,513 | 1,556|
| Cash Flow          | 2,412 | 2,288 | 2,136 | 1,806 | 1,528 | 1,437 | 1,297 | 1,232 | 1,113|


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**Entering/Editing Data from the Keyboard**

If you do not have a datafiles subscription, you will need to gather data from the company or another reference report such as Value Line or S&P. Note that some reports will not contain all the data you need or that you may need to calculate figures separately before entering them into Stock Analyst.

*Use all the Help available* Be sure to take advantage of all the help available in Stock Analyst. Right-click on a data cell to select What’s This? and More Help for details about the data entry.

Examine the Value Line and Standard and Poor’s data sheets for data referenced in the charts that follow.

---

**Company Info**

![Company Info screenshot](image)

VL means Value Line and S&P means Standard and Poor’s reports.
## Company Data

### Table: Typical Annual Report vs VL and S&P

<table>
<thead>
<tr>
<th>ITEM</th>
<th>EXPLANATION</th>
<th>TYPICAL ANNUAL REPORT</th>
<th>VL</th>
<th>S&amp;P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Current Price Date</td>
<td>Use format: MMM/DD/YYYY, day, year (e.g. Oct/23/2006)</td>
<td>Newspaper or Internet</td>
<td>n/a</td>
<td>n/a</td>
</tr>
<tr>
<td>Current Price</td>
<td>Stock price</td>
<td>Latest newspaper or from Internet.</td>
<td>n/a</td>
<td>n/a</td>
</tr>
<tr>
<td>52 Week High</td>
<td>The highest price reached in the past 52 weeks.</td>
<td>Latest newspaper or from Internet</td>
<td>n/a</td>
<td>n/a</td>
</tr>
<tr>
<td>52 Week Low</td>
<td>The lowest price reached in the past 52 weeks.</td>
<td>Latest newspaper or from Internet</td>
<td>n/a</td>
<td>n/a</td>
</tr>
<tr>
<td>Total Debt (Mil.)</td>
<td>Long term debt plus debt due within one year.</td>
<td>Company Report, Balance Sheet, by totaling long-term plus short-term debt.</td>
<td>5</td>
<td>2.3</td>
</tr>
<tr>
<td>Total Capital (Mil.)</td>
<td>Defined as long-term debt plus shareholders’ equity.</td>
<td>Company Report, Balance Sheet. In VL, add long-term debt plus shareholders’ eq-</td>
<td>6</td>
<td>2.3</td>
</tr>
</tbody>
</table>

VL means Value Line and S&P means Standard and Poor’s reports.
<table>
<thead>
<tr>
<th>ITEM</th>
<th>EXPLANATION</th>
<th>TYPICAL ANNUAL REPORT</th>
<th>VL</th>
<th>S&amp;P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Insider Holding (%)</td>
<td>% of shares held by executives and directors of company</td>
<td>May be reported in company’s Proxy Statement. Check Internet. VL may show in Business section.</td>
<td>Business</td>
<td>1.2</td>
</tr>
<tr>
<td>Inst. Shares (000)</td>
<td>Enter in thousands of shares held by mutual funds, pensions, &amp; other groups.</td>
<td>Check Internet.</td>
<td>Institutional Decisions</td>
<td>1.2</td>
</tr>
<tr>
<td>Common Dividends</td>
<td>Enter regular dividends paid to share owners over the last 12 months.</td>
<td></td>
<td>Quarterly dividends</td>
<td>1.4</td>
</tr>
<tr>
<td>Outstanding Shares (Mil.)</td>
<td>Basic number of shares issued and outstanding</td>
<td>Annual Report Balance Sheet/Shareholders’ Equity. Also where EPS are stated.</td>
<td>5</td>
<td>1.2</td>
</tr>
<tr>
<td>Diluted Shares (Mil.)</td>
<td>Since 1997 companies have been required to report diluted EPS, as well as basic.</td>
<td>Normally shows where EPS are stated. Check footnotes for which figures may be diluted</td>
<td>5</td>
<td>n/a</td>
</tr>
<tr>
<td>Preferred Shares (Mil.)</td>
<td>Many companies do not have preferred shares.</td>
<td>Annual Report Balance Sheet/Shareholders’ Equity</td>
<td>5</td>
<td>n/a</td>
</tr>
<tr>
<td>Analysts’ Sales Projection</td>
<td>Analysts’ projection for revenues.</td>
<td>Internet or Analyst Reports</td>
<td>n/a</td>
<td>n/a</td>
</tr>
<tr>
<td>Analysts’ EPS Projection ($)</td>
<td>Analysts’ Consensus Estimate for EPS for current fiscal year</td>
<td>Internet or datafiles.</td>
<td>7</td>
<td>1.2</td>
</tr>
</tbody>
</table>
This screen defaults to displaying Book Value/Share instead of Common Equity.

<table>
<thead>
<tr>
<th>ITEM</th>
<th>EXPLANATION</th>
<th>TYPICAL ANNUAL REPORT</th>
<th>VL</th>
<th>S&amp;P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Year</td>
<td>The company’s fiscal year may differ from calendar year.</td>
<td>Cover of the annual report.</td>
<td>3</td>
<td>2.1</td>
</tr>
<tr>
<td>Revenue (Mil.) $</td>
<td>The amount collected for all goods or services sold by the company. May also</td>
<td>Financial Statement, Consolidated Statement of Earnings.</td>
<td>4</td>
<td>2.2</td>
</tr>
<tr>
<td></td>
<td>be called revenues.</td>
<td></td>
<td>n/a</td>
<td>2.2</td>
</tr>
<tr>
<td>Pre-Tax Inc (Mil.) $</td>
<td>The amount of profit prior to the payment of taxes.</td>
<td>Annual report</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Net Profit (Mil.) $</td>
<td>Net income.</td>
<td>Company Annual Report, same page as Sales.</td>
<td>4</td>
<td>2.2</td>
</tr>
<tr>
<td>Book Value/Share $</td>
<td>Worth of company represented by shares held by common shareholders.</td>
<td>Company Annual Report, Balance Sheet, Shareholders’ Equity.</td>
<td>8</td>
<td>2.3</td>
</tr>
<tr>
<td>ITEM</td>
<td>EXPLANATION</td>
<td>TYPICAL ANNUAL REPORT</td>
<td>VL</td>
<td>S&amp;P</td>
</tr>
<tr>
<td>-----------------------</td>
<td>-----------------------------------------------------------------------------</td>
<td>---------------------------------------------------------------------------------------</td>
<td>----</td>
<td>-----</td>
</tr>
<tr>
<td>EPS $</td>
<td>EPS reported as a yearly figure.</td>
<td>Same page as Sales.</td>
<td>4</td>
<td>2.1</td>
</tr>
<tr>
<td>Dividends $</td>
<td>Dividends paid each year to shareholders of common stock. Some companies do not pay dividends.</td>
<td>The newspaper will report the latest yearly dividend. For the dividend history, check the annual report 10 year Summary.</td>
<td>4</td>
<td>2.1</td>
</tr>
<tr>
<td>Market Price High $</td>
<td>The highest price reached in the past 52 weeks.</td>
<td>Latest newspaper or from Internet.</td>
<td>n/a</td>
<td>n/a</td>
</tr>
<tr>
<td>Market Price Low $</td>
<td>The lowest price reached in the past 52 weeks.</td>
<td>Latest newspaper or from Internet.</td>
<td>n/a</td>
<td>n/a</td>
</tr>
<tr>
<td>Shares Outstanding</td>
<td>Basic number of shares issued and outstanding</td>
<td>Annual Report Balance Sheet/Shareholders’ Equity. Also where EPS are stated.</td>
<td>5</td>
<td>1.2</td>
</tr>
<tr>
<td>Date of Last Fiscal Year</td>
<td>Month/day/year</td>
<td>Company Report, Balance Sheet Statement date. See More Help for further details. Note that this sets the yellow cell marker for latest quarter.</td>
<td>6,</td>
<td>7</td>
</tr>
<tr>
<td>Last 4 Quarters EPS</td>
<td>This updates EPS since the last fiscal year. Use one source consistently for all data.</td>
<td>Company Quarterly Report or check Internet.</td>
<td>7</td>
<td>1.3</td>
</tr>
</tbody>
</table>
## Quarterly Data

### Explanation Table

<table>
<thead>
<tr>
<th>ITEM</th>
<th>EXPLANATION</th>
<th>TYPICAL ANNUAL REPORT</th>
<th>VL</th>
<th>S&amp;P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quarter</td>
<td>Fiscal quarter and corresponding calendar date.</td>
<td>n/a</td>
<td>10, 11</td>
<td>1.3</td>
</tr>
<tr>
<td>Sales (Mil.)</td>
<td>This updates sales since the last fiscal year. Use one source consistently for all data.</td>
<td>Company Quarterly Report or check Internet.</td>
<td>6</td>
<td>1.3</td>
</tr>
<tr>
<td>Earnings Per Share</td>
<td>This updates EPS since the last fiscal year. Use one source consistently for all data.</td>
<td>Company Quarterly Report or check Internet.</td>
<td>7</td>
<td>1.3</td>
</tr>
<tr>
<td>Tax Rate (%)</td>
<td>Percentage paid for taxes.</td>
<td>Company Quarterly Report Notes to Financial Statements under Income Taxes.</td>
<td>n/a</td>
<td>n/a</td>
</tr>
<tr>
<td>Net Profit (Mil.)</td>
<td>May be called Net Income.</td>
<td>Company Quarterly Report, same page as Sales.</td>
<td>n/a</td>
<td>n/a</td>
</tr>
<tr>
<td>Date of Last Quarter</td>
<td>Format is month, year.</td>
<td>Company Quarterly Report, Income Statement date. See More Help in Stock Analyst for more details for Value Line.</td>
<td>6, 7</td>
<td></td>
</tr>
</tbody>
</table>
### Date of Last FY
Month/day/year


<table>
<thead>
<tr>
<th>ITEM</th>
<th>EXPLANATION</th>
<th>TYPICAL ANNUAL REPORT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Date of Last FY</td>
<td>Month/day/year</td>
<td>Company Report, Income Statement date. See More Help for further details.</td>
</tr>
<tr>
<td>PMG Monthly Price</td>
<td>Share prices for company at some point in each month. You can enter several months and years of historical share price data.</td>
<td>n/a</td>
</tr>
</tbody>
</table>

**Tip for finding monthly share prices.**

From the Menu Bar, select View | Company/Favorites | Add Site. In the Name field, type: Yahoo Historical Prices. In the URL field, type: http://finance.yahoo.com/q/hp?s=<SYMBOL> and Click OK.
### Balance Sheet Data

<table>
<thead>
<tr>
<th>ITEM</th>
<th>EXPLANATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cash &amp; Equivalents</td>
<td>Cash, or cash and equivalent assets.</td>
</tr>
<tr>
<td>Marketable Securities and Investments</td>
<td>Securities, often liquid and short-term in nature, held by the company.</td>
</tr>
<tr>
<td>Accounts Receivables</td>
<td>Payment owed by customers, royalties receivable, tax refunds, etc.</td>
</tr>
<tr>
<td>Inventories</td>
<td>Finished goods, work in process, and materials.</td>
</tr>
<tr>
<td>Total Current Assets</td>
<td>Short term, long term and &quot;other&quot; assets.</td>
</tr>
<tr>
<td>Total Property, Plant &amp; Equipment</td>
<td>Fixed assets held by company.</td>
</tr>
<tr>
<td>Total Current Liabilities</td>
<td>This includes financial obligations that will have to be paid within the next 12 months, such as accounts payable, taxes, wage accruals, and short-term debt. Source: &quot;Total current liabilities&quot; line of the company's balance sheet or from the Value Line or S&amp;P sheet.</td>
</tr>
</tbody>
</table>
## Consolidated Statement of Earnings

<table>
<thead>
<tr>
<th>ITEM</th>
<th>EXPLANATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cost of Goods Sold</td>
<td>Expenses related to raw materials, manufacturing costs and direct labor.</td>
</tr>
<tr>
<td>Total Interest Paid on Debt</td>
<td>Interest paid on the company’s debt.</td>
</tr>
</tbody>
</table>
### Statement of Cash Flow

#### ITEM

<table>
<thead>
<tr>
<th>ITEM</th>
<th>EXPLANATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Net Cash Provided By Operations</td>
<td>Cash generated from the operations of a company, generally defined as revenues less all operating expenses, but calculated through a series of adjustments to net income.</td>
</tr>
<tr>
<td>Acquisition of Property, Plant &amp; Equipment</td>
<td>Spending for acquisition of property, plant, and equipment.</td>
</tr>
</tbody>
</table>
The SSG Graph records and measures historical growth for sales and earnings. The chart shows the consistency of that growth. The estimate of future growth comes from your understanding of the company’s future potential.

**Introduction**

The Stock Selection Guide Graph is used to measure how well the company’s management has been able to grow sales (or revenues) and earnings over the past 5 to 10 years.

Past growth is an indication of how the company may perform in the future.
Future sales and earnings growth drives the growth of the stock price, producing the appreciation from your original stock purchase price. The SSG Graph can reveal significant information. Its purpose is to display all the important information in one simple report.

**SSG Graph Items**

<table>
<thead>
<tr>
<th>ITEM</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Blue line</td>
<td>Sales or revenues (same color as labels at bottom).</td>
</tr>
<tr>
<td>Magenta line</td>
<td>Earnings per share (same color as labels at bottom).</td>
</tr>
<tr>
<td>Green Line</td>
<td>Pre-tax income.</td>
</tr>
<tr>
<td>Blue Bars</td>
<td>Yearly high and low prices.</td>
</tr>
<tr>
<td>Circles</td>
<td>Quarterly results (if any).</td>
</tr>
<tr>
<td>Price Zone Bar</td>
<td>Buy, Hold, Sell zones as calculated in Part 4.</td>
</tr>
<tr>
<td>Data Labels</td>
<td>Start and end values for projected lines.</td>
</tr>
<tr>
<td>Lst Square, Mid Point or User Set</td>
<td>Least squares, Mid-point or user set projection.</td>
</tr>
<tr>
<td>Scale X</td>
<td>In Recent Quarterly Figures box, the scale factor for indicated data.</td>
</tr>
</tbody>
</table>

**Objectives**

Your objectives for the Stock Selection Guide Graph (SSG) are:

1. To assess the consistency of historical growth for sales and earnings per share (by observing the smoothness or jaggedness of the lines).
2. To measure historical growth of sales and earnings (by drawing trend lines for each).
3. To project sales and earnings growth 5 years into the future (by researching the company to determine if past conditions are likely to continue).

It is very important to be informed about the company’s past growth, strengths, and weaknesses. You should also research the company’s current and future plans. Such knowledge helps you to make more reasonable judgments about the company’s potential for growth.

**Assessing Consistent Growth - Step 1**

The Stock Selection Guide Graph gives good visual information about a company’s growth. Smoothly rising lines show that management is growing the sales and earnings steadily. It is relatively easy to draw the trends and
projections for such data, because consistent growth tends to be followed by more consistent growth.

When the sales and earnings lines show peaks and dips, it suggests that management has had a difficult time growing the company consistently. It can be difficult for even an experienced investor to decide how to draw the trend lines. The inconsistencies must be investigated and then decisions made about whether they are likely to reoccur.

Measuring Historical Trends – Step 2

Your next goal in the SSG Graph is to measure the growth (slope) of the sales and earnings per share (EPS) lines. The computer will draw the trend lines according to a formula. You may adjust the trend lines according to your judgment. See the section below called “User-Drawn Trend Lines” for more information.

Trend and Projection Lines

The red trend and projections lines placed on the plotted data to measure and project growth should be looked at as the electronic equivalent of a ruler. Your objective is to move, drag and drop, the ends of the ‘ruler’ to conform to the information you want to measure. This gives you the flexibility equivalent to the paper and pencil method used with the traditional SSG form.

Computer-Drawn Trend Lines

You may choose between least squares or mid-point for the default growth measurement. Right-click on the graph to display the pop-up window that in-
cludes the options from which you may choose. At the bottom of the SSG Graph, note the growth rate for the calculated method or the user-drawn trend.

**Least Squares Method**
This is the Stock Analyst default setting for growth.

**Mid-Point Method**
A second mathematical choice is the mid-point calculation. This is a simpler formula (see the Formulas section) that can easily be tested and confirmed by the user.

**User-Drawn Trend Lines**
The computer places the trend line near the historical data. Consider the red trend line as your electronic ruler, showing the slope of the data growth. Click and drag and drop each of the end markers to place the line over the data you want to measure.

There are times when you will want to focus on specific data. You may wish to measure the growth of the last few years because it better represents the company’s current situation than an earlier period. You may wish to measure the full 10-year period and compare it to the last 5-year period.

Understanding past growth gives you insight that will aid you in estimating future growth rates.

**Which Method to Use?**
There are various ways to draw the trend line. You may wish to test each of the following methods. Note the growth percentage at the bottom of the Graph for each method illustrated below.

**Inspection Method**
Your eye and brain can spot a trend. This method will yield somewhat similar results to the least squares default setting for growth. In the example on the left, the trend line is drawn primarily to assess growth in the latest 3 years.
**Peak Method**

This method draws a trend line through the highest peaks of the plotted data. Experience shows that this method works well for cyclical companies (i.e. companies such as autos or oil and gas) whose profits ebb and flow over several years, rather than moving on a steady upward growth pattern.

**Area Method**

This method places the trend line so that data plotted falls on either side of the line to form equal areas on the top and the bottom of the trend line.

Generally you will find that the methods will yield similar percentage results unless you have widely ranging data as in the above example. Eventually you will adopt a style that is right for you and alter it to suit the circumstances of the company.
Excluding Years

Stock Analyst allows you to exclude years of data that don’t fit the trend. Excluding/including a year can be done by left-clicking on the year label at the bottom of the graph. This automatically resets the historical trend line to the computer calculation. The example shows a dip and a peak excluded from the least squares calculation.

Projecting Future Growth – Step 3

Once the historical trend lines are drawn, your task switches to projecting the future. The process is similar for both sales and EPS.

There is one critical part to projecting future growth. You must know enough about the company to predict whether it will increase, decrease, or maintain its past growth into the future.

Factors Contributing to Growth

Consider various influences on the company before projecting future growth. Key reasons for past success may or may not be still applicable.

1. Constant flow of new products
2. Application of old products to new and different problems
3. Expanding markets
4. Competition
5. Geographical expansion
6. Mergers or acquisitions
7. Retention of earnings to finance future growth

Guidelines for Projecting Growth Rates

Here are some guidelines for projecting future sales and EPS growth.

1. The computer-calculated projections (least squares or mid-point) can be useful when companies are very regular in their growth. However, for companies with irregular pasts or
losses in any given year, these mathematical projections can be irrelevant.

2. Projected EPS growth should be equal to or less than sales growth. The only exception would be if the company was in a turnaround situation where profitability is expected to improve.

3. It is difficult for most companies to maintain growth at more than 15% for long periods. Very few can sustain 20%. Keep these limits in mind when doing your projections.

4. Confirm that the latest quarterly sales and EPS percentages are equal to historical growth trends and are keeping up with your growth projections. (Right-click on the graph to show the Recent Quarterly Figures box.)

5. Make sure that you project for 5 years by starting your projection from the data point for the latest quarter. (See “Projecting a Full 5 Years” later in this chapter for details.)

6. Test your EPS projection by using the Preferred Procedure. Sales tend to be more consistent than EPS and thus are easier to project. The Preferred Procedure uses projected sales to calculate projected EPS (and growth) based on past profitability, taxes, etc. See the Preferred Procedure section for more details.

**Setting Future Growth Rates**

Another method is to click the graph with the right mouse button and select Draw Projection Line. Then drag the projection line end markers to show your future growth rate at the bottom of the graph.
To set a specific growth rate figure, right-click on the yellow Estimated Future label at the bottom of the graph. Call up the Enter Judgment window to enter your projected growth rate.

**Resetting Trend and Projection Lines**

To reset judgment in the SSG graph right-click on the graph and select the SSG Graph Options menu item.

You can then use the SSG Graph Options window to adjust any or all of the judgment items.

Click the “R” next to an item to reset it to the default value, enter specific values in the data boxes, or use the arrow buttons to increase or decrease selections.

This is also where one can reset Price Scale over the EPS line or Pre-tax income to see if stock price is tracking these numbers or perform other “What if” scenarios.

Click “Reset All” to restore all judgment items to the default values.

**Recent Quarterly Figures**

Display the Recent Quarterly Figures box by clicking the graph with the right mouse button and selecting Recent Quarterly Figures. You may display or hide this box to better view data plotted behind it. The Recent Quarterly Figures will always be included in the printed report. The last quarter date is set in the quarterly data entry window.

Review the information in this area and confirm that it is consistent with historical and projected growths. Variations from your expectations should be
investigated.

**Pre-tax Income**

Plotting pre-tax income helps to visualize and understand the relationship between sales and earnings. For the ideal company, these lines would be parallel. Often they are not and indicate potential areas for further investigation.

When pre-tax income grows at a faster rate than sales, it shows management’s ability to control expenses. It could also be due to price increases of the company’s products or services. The first is desirable while the second is probably short-lived.

If earnings grow faster than pre-tax income, then taxes may have been lowered or the number of shares may have been reduced.

Knowing and understanding these relationships may help with your stock study. Assess how these factors may affect the company before you do your projection of earnings.

**Preferred Procedure – (projecting EPS from Sales)**

This projection method uses projected sales as a starting point for calculating future EPS. This is a preferred procedure because sales can usually be projected with greater confidence than earnings. To access this window, click the SSG Graph with the right mouse button and select Preferred Procedure.

Use this method to confirm that your initial EPS growth projection seems reasonable. In this window the items on the left are used to calculate projected EPS. Projected sales growth must be set to your expected future sales growth rate.
**Operation**

As you select an item from the left, the right grid shows up to 10 years of historical data. Review the historical data and anticipate the future trend for each as a basis for setting your value.

The default value for this calculation is either the average for the item or a value derived from previous settings. The R button resets the item value to the default value.

For Tax Rate and Pre-tax Profit on Sales cells, the historical data for the last 5 years is displayed with a yellow background. Click on a yellow cell to exclude/include the value from the average calculation.

You may change a value to test the effect of:

<table>
<thead>
<tr>
<th>ITEM</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Start Sales (or revenue)</td>
<td>Starting sales figure for sales projection, select from last year (RY) or the last cumulated 4 quarters (RQ).</td>
</tr>
<tr>
<td>Sales Growth</td>
<td>Percentage increase you anticipate</td>
</tr>
<tr>
<td>Pre-tax Inc on Sales</td>
<td>Profitability or pre-tax profit margin</td>
</tr>
<tr>
<td>Tax Rate</td>
<td>Tax rate percentage</td>
</tr>
<tr>
<td>Pref Dividend Paid</td>
<td>Amount paid to preferred shareholders. Entered in the Company Data window.</td>
</tr>
<tr>
<td>Number of Shares</td>
<td>Common shares outstanding</td>
</tr>
</tbody>
</table>

**Initial default value and the R button**
Start EPS
Starting value for EPS projection, select from last year (RY) or the last cumulated 4 quarters (RQ).

Press the ENTER key or click the Calculate button to show the resulting future EPS amount and EPS growth percentage. Click OK to alter the projection lines in the SSG graph.

**Interpretation**

**How Much Growth?**
A company’s sales growth is the key ingredient for successful investing. Sales growth supports all the company activities that produce earnings growth. Price appreciation ultimately flows from sales and earnings growth.

A company’s past record of sales growth can be a good hint to its potential for future sales growth. If your goal is to earn a compounded return of 15% per year for your portfolio of stocks, you must ensure that there is sufficient potential sales growth in your portfolio of companies.

**Sales Growth by Company Size**
Generally, larger companies grow more slowly than smaller companies. Check the latest yearly sales figure to determine whether a company is small, medium, or large in size. Then make sure that your projected sales growth seems appropriate for the size of the company.

<table>
<thead>
<tr>
<th>COMPANY SIZE</th>
<th>SALES</th>
<th>SALES GROWTH</th>
</tr>
</thead>
<tbody>
<tr>
<td>Small</td>
<td>Under $400 Million</td>
<td>Greater than 12%</td>
</tr>
<tr>
<td>Medium</td>
<td>$400 Million to $4 Billion</td>
<td>7% to 12%</td>
</tr>
<tr>
<td>Large</td>
<td>Greater than $4 Billion</td>
<td>5% to 7%</td>
</tr>
</tbody>
</table>

**Is It Quality Growth?**
The Stock Selection Guide Graph also reveals the quality of growth. This is defined as the consistency of growth from year to year. A company with straight (or nearly straight) data lines moving in an upward fashion shows the quality characteristic.

It is easier to project future sales and earnings for companies that have shown steady growth over 5 to 10 years. Their track records suggest that management has the ability to grow the same way in the future.

It is more difficult to predict the future growth of companies with jagged data lines on the SSG Graph. Such irregular growth may be due to management’s difficulty in controlling its business.
Such irregularity may also represent the past growth for a company in a cyclical business. A cyclical business is one in which sales may ebb and flow according to the economic cycle. For example, oil or auto companies do not grow at a consistently even rate but rather are somewhat affected by outside influences beyond their control.

### Other Notes

#### Updating

SSG Graph projections, once set, may remain unaltered until a new year of data is available or until some other indication prompts a review. In this way, you can compare new quarterly sales and earnings results with your projections for growth to see if the company is meeting your expectations.

As each new year of company data becomes available, update your information. (See Chapter 4 for details.) At that time reapply your judgment in the SSG Graph. Redraw the trend lines and project the growth based on your new information about the company.

#### Non-recurring Items

When a company’s latest year’s results are due to an unusual circumstance (called a non-recurring item), you can alter the starting point for your projection line in order to compensate for the event. This usually happens with EPS. Click and drag the left side of the red projection line to the starting value you wish to use.

#### Projecting a Full 5 Years

If you do your first study of a company after the 1st, 2nd, or 3rd quarter figures have been announced, your normal projection line could be for less than 5 years ahead. This results in an understated projected EPS figure.

To show a full 5-year projection, you must make the starting point equivalent to the value of the latest cumulative 4 quarters of earnings.

To see the value of the last data point, hold the cursor over the last quarterly circle on the graph (note the example). Then click and drag the left end of the red projection line upward to the same value as this circle point. Starting from this value means that you are projecting for a 5 full years.
This figure shows the EPS starting point for the projection line set to $0.65 (the latest cumulative 4 quarters of earnings).

To enter an exact EPS starting figure, use the Preferred Procedure window. Type in the EPS starting figure (or click the R for reset and select the cumulative figure) and click Calculate and OK. Then adjust the slope of your projection line.

---

**Formulas used in the SSG Graph**

**Growth Calculations**

Computer growth calculations are based on two selectable formulas, mid-point averaging and least squares.

*Mid-Point Growth*

This is the ‘simpler’ formula. If the 10 years of data are 1986 to 1995, data for 1986 to 1990 is averaged and the value is placed in the middle of this time period (1988). The values for 1991 to 1995 are also averaged and the value is placed in the middle of the time period (1993). The slope of the (imaginary) line drawn between these two points is the calculated growth for the period 1986 to 1995.

For an odd number of years, Stock Analyst splits the data so that the middle year is counted in both averaged sums.

Note that the mid-point method does not re-calculate for excluded data.

*Least Squares Growth*

This formula most closely approximates the inspection method for measuring growth. This calculation uses the logarithm of the values. It is beyond the scope of this documentation to describe the statistical method used.

**Earnings Projection for the SSG Graph**

The 5-Year EPS projection is based on the following formula:

\[
5\text{-Year EPS} = \text{Current EPS} \times (1+\text{EPS Growth})^5
\]

where EPS Growth is expressed as a decimal fraction.

No EPS projection is made if the Current EPS is zero or negative. A projection for EPS must be drawn manually for this situation. The current EPS value, unless changed, is the last reported yearly EPS.

**Preferred Procedure – (Revenue Based EPS)**

\[
\text{Proj EPS} = \{(\text{Proj Sales} \times \text{PreTaxInc on Sales}) \times (1-\text{TaxRate})\} \times \frac{\text{Pref Div}}{\text{Outstanding Shares}}
\]
Graph Scaling

The program automatically scales data so that normally, sales values are on top, pre-tax income is in the middle, and EPS is at the bottom of the graph. Scaling allows data to be displayed in optimal positions.

You may adjust scaling for all plotted data. Use the right mouse button and click on the data to be scaled. Click “Move Up” or “Move Down.” The scale factor is shown in the Recent Quarterly Figures box. To see the value for a data point, touch the data point with the cursor. Use the “Reset Scale” button to restore the default scaling.

The scale factors used are multiples of 1, 2, 5, e.g. 0.1, 0.2, 0.5, 1.0, 2.0, 5.0, 10, 20, 50, 100, etc.
The Analysis section of the SSG looks at management skill and price valuation. It also assesses the potential rewards (and risks) of investing in the company at the current stock price.

Introduction
The Analysis section (or the back side) shows Parts 2 to 5 of the Stock Selection Guide Each deals with a unique aspect of the stock study and should be completed. In the Analysis you will:

1. Evaluate the quality of management (Part 2)
2. Review historical Price-Earnings ratios (PE Ratios) (Part 3)
3. Evaluate future reward and risk (Part 4), and
4. Measure the potential return of your investment (Part 5)

Data for analysis comes from the Yearly Data window. Review the Formulas section at the end of this chapter for details on calculations for Parts 2 to 5 of the SSG.

Part 2 - Evaluating Management
Company results are directly related to management’s abilities. Part 2 reviews two aspects of management’s historical performance: profitability (also called %pre-tax profit on sales or pre-tax profit margin) and return on equity (also called %ROE). Good results in these areas can give the investor confidence that management has the ability to perform well in the future.

Objectives
In Part 2 - Evaluating Management your objectives are:

1. To determine whether year-to-year results are consistent or trending upward.
2. To determine whether annual results are superior and compare well to the best companies in their industry.

**Operation**

Your task is to observe the data and come to some conclusions about company performance.

**Excluding a year of ‘bad’ data.**

There are occasions when an unusual occurrence may skew the data for a particular year. The cursor will change as you move over the yellow cells. This indicates that you can exclude values from the calculation of the average by clicking on the cell to be excluded.

**Setting Trends**

Set the Trend for each of the management areas by clicking the right mouse button and selecting User judgment. The choices are Up, Down, Even and Varying.

### Determining Consistency and Trends – Step 1

Examine the year-to-year results, watching for variations in the figures. Make sure the trend for the past 5 years is fairly consistent or trending up. If trending downwards or variable, it shows that management has had some problems. For these situations, you will need to investigate the reasons for the poor or variable results. This makes the study potentially challenging. A beginner would be wise to consider studying a different company.

Numbers within a variation of + or – 5% from the 5-year average are considered consistent (i.e. if the average is 20% then the variation would be from 19% to 21%). In the Trend cell at the end of each data line favorable consistency is shown by an ‘Even’ or ‘Up’ trend.

### Industry Comparison – Step 2

Confirm that the company has high profitability and high return on equity numbers in relation to other companies in its industry. Use the Favorite Sites section of Stock Analyst for Internet access to this type of information.

Value Line provides an industry summary page useful for comparison to the
industry average. If you use the S&P Stock Data Service and have the Stock Prospector software, you can screen for and report on industry averages.

High and consistent (or increasing) numbers for profitability and % return on equity indicate management is doing a good job of controlling costs and using shareholders’ investment to produce a profit.

**Interpretation**

**Profitability**

%Pre-tax Profit on Sales (also called Pre-tax Profit Margin) measures how well management converts sales dollars into profits, after paying all the expenses of making and selling the products or services. Look for profitability of 12% to 15% or better. High margins help a company cope more successfully with competitive pressures and allow pursuit of more business opportunities.

Profitability numbers depend upon the type of business the company is running. The grocery business typically has low profit margins. That is why you should compare profitability figures among companies in the same business or industry or compare to an industry average. A company with high numbers within the industry is likely a leader in its field. Investing in leaders is usually a good practice.

**Return on Equity (ROE)**

% ROE measures the amount of money (the return) made by the company in relation to the amount invested (the equity). Equity includes money shareholders have invested by buying shares, plus profits reinvested by the company over time. Higher %ROE numbers usually indicate superior management. However, balance sheet leverage (debt) and buyback of stock can skew these numbers.

Numbers of 10% to 12% or higher are good results for % ROE. These figures will also vary according to industry, although not as much as for profitability.

**Summary of Part 2 - Evaluating Management**

High and consistent numbers in Part 2 of the Stock Selection Guide tend to identify quality companies that are industry leaders. Industry leaders usually have advantages over their competitors, making them less vulnerable to economical and political risk.

Even and up trends are positive indicators and are also signs of well-managed companies.
Part 3 - Price-Earnings History

Part 3 of the Stock Selection Guide helps you to determine if a company is reasonably valued at the current stock price. The measurement of the stock’s value is the Price-Earnings ratio. Current PE is calculated as:

\[
\frac{\text{current stock price}}{\text{sum of latest 4 quarters EPS}} = \text{Current PE}
\]

Think of the Price-Earnings ratio as the price investors are willing to pay for $1 of a company’s earnings. In the example below, investors are willing to pay $20 for each $1.00 of earnings.

\[
\frac{\$24.00}{\$1.20} = 20 \text{ (PE)}
\]

Historical PE ratios could vary due to:

1. Changes in the company’s business
2. Competition
3. Political and economical trends
4. Investors’ confidence (thus we have “bull” and “bear” markets)

The first two items are important because they affect the future growth of the company. The last two items also affect the stock price but are not necessarily due to the successful growth of the company. Such situations may tend to skew the company’s historical and current PE valuations.

In Part 3 the company’s current PE ratio is compared to its historical average PE. If the current PE is lower than the average PE, then the stock is considered reasonably valued.

Data used for Part 3 calculations is recorded in the Yearly Data window.

Objectives

1. Examine the various columns of data, looking for numbers that seem unusual from the norm.
2. Look for a trend in the numbers. High and low prices, EPS, and dividends if any (A, B, C, F) should be increasing. High and low PE ratios, and payout ratios (D, E, G, and H) should be fairly constant.
3. Compare the current PE to the historical PE ratios to discover whether it is currently at the upper, lower, or middle of its historical range. This shows whether the stock is a good value currently.
Operation

Part 3 operation mainly involves examining data. Data in any of the yellow cells may be excluded from the average calculation by clicking on the cell. (For details see the next section, Looking for Unusual Figures.)

You may also decide to use an average figure more representative of historical norms. Click on the cell with the right mouse button, select SSG Analysis Judgment, and enter the value from the keyboard.

Looking for Unusual Figures – Step 1

Look at the columns of data for numbers that seem abnormally high or low. A number may properly be excluded if:

1. A value varies by more than 50% from the average, and
2. You are satisfied that whatever happened to cause the problem has been corrected by the company and is not likely to re-occur.

Looking for Trends – Step 2

You should expect prices and EPS to increase over time. These are the same items plotted on the SSG Graph.

More importantly, you should note if the PE columns D and E show any trends up, down, or if PE ratios keep within a range. PE Ratios that vary present challenges for analysis. They will likely reflect the variable conditions
that you may have observed on the Graph.

PE Ratios that are greater than 50% of the average make assessment more difficult and involve greater risk. Numbers that vary much more than this should be flags indicating volatility and/or questionable management. Circumstances for these numbers should be investigated.

For companies paying dividends, look for steadily rising figures. Also, look at the dividend payout to make sure that it is not excessive. 60% or higher is excessive.

**Determining Value – Step 3**

Most companies evolve slowly. Over a period of 5 years or more the high PE to low PE spread for a company remains fairly constant. Differences in PE are most likely due to investor perception rather than any meaningful change in the company (i.e. unusual EPS results). Therefore, the historical average PE becomes the basis of comparison for value. The average high and average low PE Ratios are characteristic of the company’s valuation range.

**Interpretation**

Share price is affected by company performance as well as economic factors and investor sentiment. The last two items tend to move Price-Earnings ratios up and down within a normal characteristic PE range for the company. Looking at historical PE Ratios helps to formulate this characteristic range.

The long-term investor should be prepared for long periods of pessimism in the market. In pessimistic periods, PE ratios tend to decline, even as a company continues to grow.

The 1965-1983 years were such a period of low PE Ratios. As a company announced a year of 15-20% growth, the market would drop the PE 2 to 5 points. This was a discouraging period, but a time for the accumulation of tremendous values.

The present time is just the opposite but there could be a possibility that many PE ratios of 50-60 may be substantially reduced, even as low as 5 and 6.
What constitutes value

The average PE in cell 8 of Part 3 represents the historical valuation for the stock. Compare this with the current PE in cell 9. A current PE which is less than the historical average is deemed to be ‘under valued’ and ‘on sale’.

Earlier you learned that price goes up when earnings grow. Share price also can increase due to the effects of PE.

When you buy a stock with a current PE ratio below the average PE, you have the opportunity to benefit from PE expansion. If the company continues to increase sales and earnings and attracts investors’ attention, then the PE ratio is likely to move upward, bringing the stock price higher.

Projected PE

The experienced investor may make a second value assessment based on a projected PE calculation. A projected PE is used because the market normally prices a stock in anticipation of its earnings performance.

For a projected PE, the EPS is usually estimated 4 quarters ahead. Look at the Projected Values line at the bottom of Part 3 for this information.

To display the Projected Values line, right-click on Part 3 and select Part 3 Extras.. Alternatively, select Part 3 Extras from the Tools | Preferences | SSG Analysis tab.

3 EPS Choices for Projected Values Calculation

Your choice of EPS estimate depends on what data you have available and how confident you are of the data. Right-click on the EPS value within the Projected Values line. Select your EPS choice from the Projected PE Calculations item.

Last 4 quarters EPS uses estimated data you entered in the Quarterly Data window beyond the latest quarter (above the yellow line).

ACE Forecasted EPS uses the Analysts’ Consensus Estimate figure entered in the Company Data window (or automatically from a Datafile) for the current year’s expected EPS.

EPS Growth uses your EPS projection from the SSG Graph. (1 year forward)

For choices 2 and 3 above, you may set the number of estimated quarters to calculate a projected PE. Right-click on the EPS value within the Projected Values line. Select the 4 quarters PE.
number of quarters from the PE Lead Period item.

For most companies a possible lead period would be between 2 and 4 quarters. Generally the faster the company grows the longer the projected period. This makes the estimate less certain and increases risk.

**Trends**

Be aware of negative trends

Be wary of an unusually low current PE. Note where the current price sits in relation to the 52 week high and low prices (top line of Part 3).

A current price substantially lower than the 52 week high should be looked at suspiciously. It may suggest that the company can be bought at a bargain. However, it could also suggest potential problems. Review the management performance in Part 2 and the latest quarterly results to learn more about the company.

You may want to refer to VL or S&P reports for their analysts’ comments.

**Payout Ratio**

Note the consistency of growth for dividends and expect it to match EPS growth. If it does not, you will see this reflected in the payout results. (Dividends are paid from earnings. If earnings go down, the percentage of earnings paid out as dividends will rise.)

A growth company should use earnings to finance future growth. A payout much above 15%-20% would likely affect the company’s growth.

Be concerned about the dividend if the payout ratio is greater than 60%. A high payout could make the investment vulnerable to a dividend cut. If the company experiences a bad year with lower earnings, it may be unable to support its dividend and may decide to lower the dividend paid. The investor will lose in two ways: from the dividend cut and from the lower share price which will result.

Be aware that some industries, i.e. utilities, regularly pay a high dividend due to the basic structure of their businesses.

**Part 4 - Evaluating Risk and Reward**

Figures developed in Parts 1 and 3 of the Stock Selection Guide are used in Part 4 to set buy, hold, and sell zones. The risk of buying the stock at the current price should be reasonable in comparison to the possible reward.

**Objectives**

1. Develop a high price that the company may reach within the next five years.

2. Choose an estimate for the lowest price to which the com-
pany may fall during the next five years.

3. Note where the current price sits within the price zones and note the upside/downside ratio.

4. From the current price, note the potential price appreciation over the next 5 years.

**Operation**

Review the figures being used to calculate the high and low prices.

Yellow cells can be altered. Do this if the calculated numbers don’t reflect your expectations for the company’s future. Click on an item to alter a value or right-click and choose “SSG Analysis Judgment” from the menu items.

**Developing a Potential High Price – Step 1**

Part 4A develops the highest price possible within the next 5 years. This is the product of the average high PE and the estimated high EPS (from the SSG Graph).

**Value and EPS growth**

Assess the future potential of the company

Determine if the average high PE is reasonable by comparing it to the expected EPS growth rate. An average high PE more than 1.5 times the expected EPS growth rate could be considered excessive in most instances.

Confirm that you still agree with your estimated high EPS. This future 5-year EPS was developed in the SSG Graph as you made judgments about the future sales and earnings for the company and drew your EPS projection line.

Finally, look at the 5-year ranges for both high and low prices. See whether
prices have increased. Look at the current price and determine where it fits in the most recent 52-week period. Then consider the growth necessary for the current price to reach the forecast high price. (For example, will it need to double or triple?)

If you are not comfortable with your forecast high price after these considerations, click on the yellow cell to alter the value. Applying judgment is a very important element of doing stock study. It is usually better to use a conservative high price and have a pleasant surprise, than to be aggressive and have a negative one.

**Estimating the Low Price – Step 2**

Choosing a low price is very important for developing the zoning price ranges and for calculating your risk when buying at the current stock price. The low price should be the lowest price to which the company could drop, in the worst case scenario. Obviously, it must be lower than the current price.

The low price makes the most impact on the size of the upside/downside ratio.

In Part 4B several possible low prices are available.

Review Part 4Ba to decide whether you would like to revise figures for any of the yellow cells. The low EPS defaults to the EPS for the last fiscal year in cell 5C. This assumes that this growth company will not earn less during the next 5 years than it did last year.

Cell 9 displays EPS based on the last 4 quarters (if you have selected to show Part 3 Extras by clicking the menu line: Options | Preferences | SSG Analysis). Using this EPS for the calculation of a low price is slightly more aggressive than using the last fiscal year EPS from Cell 5C.

Other choices for forecast low price available from the pop-up window are:

1. 4Bb: Average low price of last 5 Years. This may be used for cyclical companies, such as auto manufacturers.
2. 4Bc: Recent severe market low. This may be used when the overall market has dropped in the last 2 years.
3. 4Bd: Price dividend will support. This is used for larger companies paying a dividend that contributes significantly to the total return in Part 5C of the SSG. This price is low enough to produce a high dividend yield that competes with other income investment vehicles for investors’ money.
4. Estimated low price. You may also type in your own exact figure for this low.

Unreasonable upside/downside ratios (10 or more) most often result from un-
reasonable low price estimates. Make sure that the lowest price to which the stock may fall is not too close to the current price.

**Zoning and the Upside/Downside Ratio - Step 3**

Part 4C of the Stock Selection Guide subdivides the range between your estimated high and low prices. These are labeled buy, hold, and sell zones.

The upside/downside ratio compares the potential upward price movement from the current price (your gain or reward) to the potential downward price movement (your loss or risk). It is recommended that you look for a minimum ratio of three-to-one, so that the potential gain is 3 times greater than the risk.

The default setting for zoning divides the range into equal segments by thirds (33/33/33). When the current stock price is at the top of the buy zone, it will have an upside/downside ratio of 2 to 1. In this price position you have one third to lose and two thirds to gain.

The current price should be low within the buy zone for a 3 to 1 U/D ratio. See the **When to Sell** section of this manual regarding what to do when the price is in the sell zone.

Experienced users may choose from two zoning selections: 33/33/33 or 25/50/25. (This is done from the menu item Options/Preferences/SSG Analysis. See the Formulas section at the end of this chapter.)

The 25/50/25 zoning provides a narrower buy zone and an upside/downside ratio of 3 or better if the current price is anywhere within the buy zone. A negative point, however, is that it creates a higher sell zone, delaying the point at which you should update and re-assess your analysis of the company.

If you should get strange results for the upside/downside ratio, check where your current price lies. If your current price is lower than your lowest price or is higher than your highest price, then the resulting U/D ratio will not be meaningful. The upside/downside ratio will show as N/A (not applicable).

**Noting Potential Price Appreciation - Step 4**

Part 4E shows the potential for price growth from the current price, using a simple growth calculation. Such growth may be possible if the company can grow sales, earnings, and price as projected in the Stock Selection Guide.

It is suggested that you seek a minimum goal of 100% (or the equivalent of 15% annual compounding) price appreciation over 5 years. This is growth from the current price to the high price forecasted in Part 4A.

Growing sales and earnings at 15% should result in doubling your share price within 5 years. If you can buy the stock when the current PE is at or below
the average PE, there is a possibility that your return will be even better.

**Summary for SSG Part 4 - Risk and Reward**

It is important to buy a stock at a good price for the best price appreciation opportunity and to minimize the chance of loss. You may find it difficult to find high-quality growth companies with favorable upside/downside ratios. Be patient. If you really like a company, keep it in your database and follow its sales and earnings progress. You will likely find a point in time when the price declines for a while and you can buy at your desired price level.

---

**Part 5 - Five Year Potential**

It is unlikely that every company you purchase will be able to sustain 15% growth. Large companies, while often quality, stable investments, grow more slowly than small companies and are less likely to grow at 15%. These large companies should be balanced in your portfolio with faster growing mid-sized and smaller companies, so that overall your portfolio will grow at the 15% rate.

**Objective**

Part 5 measures the company’s potential return should you buy at the current price and the company performs the way you expect. A potential annual total return of 15% (compounded) over the next five years should be the minimum expectation.

**Operation**

Data for this section is derived from Parts 3 and 4 of the Stock Selection Guide. Formulas are described in the Formulas section at the end of this chapter.

**Interpretation**

The Estimated Potential Total Return depends upon your application of judgment. You became informed about the company’s past successes and future potential. You then made judgments leading to the potential total return on the investment.

1. You estimated the future sales and earnings growth rate.
2. You estimated the EPS 5 years in the future.
3. You estimated a potentially highest price within 5 years.
4. You estimated a potentially lowest price.

As a result of your judgments, the potential total return on investment includes two parts:

1. The potential price appreciation (as calculated in Part 4E).
2. The average annual yield from the dividend payment.

Your total return figure should be considered in the context of the company’s growth. Consider the projected growth rate for sales or earnings as a benchmark. Total return generally should be in line with the company’s growth.

The company’s expected growth rate may be lower than the total return if you buy the stock at a discounted price. If you buy when the current PE ratio is below the average PE, you may benefit from PE expansion. This means that if the company grows its earnings as you expect, the PE ratio is likely to increase to its average or its average high PE. In this way you benefit from both EPS growth and PE expansion.

Formulas Used in the SSG Analysis

Part 2 – Evaluating Management

Computer calculated trends are based on the latest 2 years of data as compared to the 5-year average. Data variations greater than 5% will trigger the trend setting: up, down, even, or varying.

Part 3 - Price/Earnings History

Simple Average

This is the normal calculation method. Divide the sum of the appropriate column by the number of entries in that column. Missing or negative data is not included in the calculation.

Part 4 - Evaluating Risk and Reward

Part 4C) Zoning Options

There are two selections for zoning. One choice is 25-50-25. The other is 33-33-33. This establishes 3 ranges between the projected Low Price and projected High Price.

For 33-33-33 zoning:

\[
\text{Zone Range } = \frac{\text{High Price} - \text{Low Price}}{3}
\]

For 25-50-25 zoning:

\[
\text{Zone Range } = \frac{\text{High Price} - \text{Low Price}}{4}
\]

Buy Below Price = Low Price + Zone Range

Sell Above Price = High Price - Zone Range
Upside/Downside Ratio = \( \frac{\text{High Price} - \text{Current Price}}{\text{Current Price} - \text{Low Price}} \)

It is recommended that you use 25-50-25 zoning, since it will ensure that a stock with a current price that is in the Buy zone will always have an upside/downside ratio of better than 3:1.

**Part 4E Price Target**

The calculation for simple price appreciation potential is:

Potential High Price - Current Price = Difference

\[
\frac{\text{Difference}}{\text{Current Price}} = \text{Result as a decimal} \times 100 = \%\text{Simple Growth}
\]

**Part 5 5-Year Potential**

A) Compounded Price Appreciation = \( (\frac{\text{High Price}}{\text{Current Price}})^{\frac{1}{5}} - 1 \)

B) Compounded Annual Dividend Yield = \( \frac{\text{EPS} \times \text{Average Payout}}{\text{Current Price}} \)

where EPS = Estimated High EPS

\[
(1 + \text{EPS Growth})^{2.5}
\]

C) Potential Total Annual Return = Price Appreciation + Average Annual Yield.
This form helps you to compare several companies in order to find the best.

Introduction

When looking for companies to buy, it is important to compare several in order to find the best. Comparisons are most meaningful when they are made among companies in the same industry. The Stock Comparison Guide helps you review important differences quickly and easily. All of the data is based on your Stock Selection Guide study and therefore is only as good as your analysis.

Companies are compared under four main criteria: growth, management, price, and other. The Stock Comparison Guide arranges data into tables for easy comparison of their relative performance.

Objectives

The objectives for the Stock Comparison Guide are:

- To select up to 5 companies in order to find the best for purchase.
- To review the computer calculated selections of the best company for each criteria item.
- To agree or disagree with the computer selections by applying judgment based on knowledge of the company.
- To decide which company is best.

Assessing the SCG

As with other studies, you must make judgments in the Comparison Guide.

The computer analyzes each row of data and highlights the cell containing the best result. The number of highlighted cells is totaled for each company and displayed at the top of each column near the company name.

Examine the computer’s highlighted cells. Alter the highlighting by clicking on one or more cells. For example, if two companies have similar growths,
i.e. 17.3% and 17.8%, you may wish to highlight both as you may consider them equal. Add or remove the highlighting by clicking on the cell.

Use the scroll bar to display all the data.

After you have applied judgment to the Stock Comparison Guide, note the revised score for the number of highlighted cells per company, displayed across the top row.

**Interpretation**

**What to Look For**

Your choice from the Stock Comparison Guide should be the company that meets your particular investing objective. For example, are you looking for a quickly growing company? Are you willing to take a little more risk because you have a long time horizon? Or, would you like a growth company that is a little less risky, with a steady growth pattern at a slightly slower pace of growth? Over time, your overall investment objective should be to achieve a diverse but balanced portfolio of companies.
**Growth Comparisons**

Here you are comparing both the historical and the projected growth rates for sales and earnings. Higher growth is normally better, unless you are looking for a larger, more stable company to balance your portfolio.

Historical growth may indicate the potential for future growth. As sales growth supports earnings growth, note if the two are similar and be aware of realistic projections for earnings growth. EPS cannot grow faster than sales for very long.

**Management Comparisons**

Here you measure the quality of management, which is crucial to the success of the company. The numbers given are 5-year averages.

**Percent Profit Margin before Taxes** reflects how successfully the management has developed and/or sold product, controlled costs, positioned the company in its industry, etc. in order to generate a profit before taxes. A higher number is superior.

These margins will vary among industries. In the food business, margins may be 4 to 5%. In the drug industry, margins may be 30% or higher. A small percentage difference in margin may be a big advantage within a particular industry.

**Percent Earned on Equity (ROE)** shows how well management is using the money invested by shareholders to build the business and produce a profit. Again, the characteristic ROE level will vary among industries. A higher number is better.

**Percent of Common Stock Owned by Management** measures the stake executives and board members (known as insiders) have in common shares as a percent of the total shares. It is suggested that by owning such shares, these people have an extra incentive to make the company profitable. Holdings may range from about 1% (at a very large company) to 60% or more (at a family business) for example.

**Price Comparisons**

The items in this section mainly relate to assessment of value. The data was developed in the SSG Analysis. Not all line items need be highlighted in the SCG. Some merely provide historical context for current values for price and Price-Earnings (PE) ratios.

**Estimated Total EPS 5 Years**

On the SSG Graph you have projected the company’s earnings five years into the future. If the earnings for each of those 5 years were added together, they would total the number given in the first line of this section.

The ideal goal is to purchase a company when its share price is no higher
than its 5-year total earnings number. This price is often very difficult to find, especially for companies with high PE. Try to purchase at a price as close as possible to this ideal.

**Price Range over Last 5 Years (High/Low)**

Note how large the price range is. Has the stock doubled in value over 5 years? If so, it may be able to do this again. Or, has the price gone up so rapidly that the current PE ratio is already discounting future growth?

It is useful to note where the present price stands in relation to history in order to assess its current valuation. Is the price currently somewhat low? What has caused this? Is the company having a problem or is there an opportunity here for a turnaround from a depressed price?

**Price Earnings Ratio Range over Last 5 Years**

In this section the figures are informational, providing a reference for the companies’ valuations.

PE ratios change as stock prices and earnings change. Note wide differences between the highest and lowest PE ratios. They may signal volatile earnings and or large price changes.

Look for value - therefore, low PE ratios. This means that a company has room for its current PE to expand to a former high PE, thus providing appreciation of its value. However, be aware of unreasonably low PE ratios as they may signal forthcoming problems.

High quality companies may carry PE ratios in a higher than normal range for the industry. This is because investors are willing to pay a higher valuation for the consistency of the company’s earnings. Normally stocks selling at high PE Ratios are volatile and may fall rapidly in price if their earnings fail to meet expectations by investors/speculators.

**Estimated Price Zones/Present Price Range**

This information is developed through your judgment in the SSG Analysis. Here it is preferable to see the present price within the Buy zone.

**Upside/Downside Ratio**

This is your potential reward/risk ratio. Ideally look for a ratio of 3 to 1 or more. Beware extreme numbers (10 and up, for example) as they indicate questionable judgments about low pricing have been made in your SSG Analyses.

**Current Yield**

If the company pays a dividend, yield is the percentage dividend paid compared to the current price. The highest number is best. Some fast-growing companies do not pay a dividend.

However, growth companies don’t normally have high dividend yields. This
is not a negative as the retained earnings can be used to help grow the company. Therefore a high or low yield is best, depending on your investing objectives - income or growth.

**Combined Estimated Yield (called Average Annual Total Return in SSG)**
This combines the potential dividend yield with price growth over 5 years for a projected compounded return on investment. 15% or better is a goal, but larger companies are less likely to achieve this. For your total portfolio of stocks, by combining companies of various sizes growing at various rates, a goal of average 15% return is reasonable.

**Other Comparisons**
This section contains characteristics related to growth, quality, value, and safety. Most of these cells need not be highlighted as judgment items. They are informational.

**Number of Common Shares Outstanding**
Larger companies will have a larger float of shares available trading on the stock exchange. This makes it easy to buy or sell a company and results in the stock price being less volatile. Larger companies are considered less risky.

**Potential Dilution from Debentures, Warrants, and Options**
These are types of securities that give holders the opportunity to buy common shares for a specific price during a specific time period. When they are redeemed or converted, they create more shares outstanding. This dilutes the value of the shareholders’ equity and reduces the earnings per share because the earnings are divided among a greater number of shares.

If you use diluted EPS in your study then the concern for potential dilution is minimized.

**Percent Payout**
This is the percentage of the company’s earnings per share paid out in dividends to shareholders. Fast growing companies often do not pay dividends or pay a small amount. In this line, your choice of Best depends upon whether you want growth or dividend income in your company of choice. A high payout percentage may indicate that management has no ideas about how to grow the company using reinvested earnings.

**Date of Source Material**
This is for reference only. This ensures that you are using the most current Stock Selection Guide possible for each company.

**Where Traded**
This indicates the stock exchange for each company. Each exchange sets its
own requirements for membership. The New York Stock Exchange has the most stringent requirements. Thus, this line item may be a slight indicator of risk. However, if you are choosing companies scoring highly on the SSG, Where Traded should not be important.

**Optional Comparisons**

Lines 27 and 28 are optional items from comparison. You can choose from a preset list of comparison items or you can set your own. The preset items are:

**Debt to Capital**

This item is also shown in the Capitalization box of the Stock Selection Guide.

**Growth for the last quarter for EPS and sales**

These two items are displayed in the Recent Quarterly Figures box of the Stock Selection Guide.

**% Institutional Holdings**

This item is also shown in the Capitalization box of the Stock Selection Guide.

**PE to Projected EPS growth**

This ratio compares the current PE to your projection of earnings. A value below 1.0 would suggest good value.

**User Comparison Item**

You may define your own comparison item for lines 27 and 28. Use the right mouse button on these two lines and select define or left click on each line and the choices will appear in sequence.

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### Comparison Guide Formulas

The Stock Comparison Guide reports values as calculated in the Stock Selection Guide analyses and adds other calculated ratios.
The 5-year future total earnings (*Est Tot EPS 5 Yrs*) calculates the sum (for 5 years) of the EPS for the SSG Graph EPS projection line you have drawn.

**PE to EPS Growth** is a ratio giving a value figure for the stock. It compares the current PE ratio to the rate of projected EPS growth. A ratio of 1 indicates a fairly-valued stock. A value of 0.5 would be a very positive indicator whereas a value of 1.5 would indicate an overpriced situation, if everything were “usual” (which it seldom is).

**Price/Revenues** ratio is based on the following formula:

\[
\text{Price/Revenues} = \frac{\text{Current Price} \times \text{Number of Shares}}{\text{Last Full Year's Revenues}}
\]

The *sales dollar figure* provides a more consistent measurement than market capitalization because it cannot be inflated by market mania (This is when the market becomes infatuated with a particular stock or industry and drives up the price.) To achieve diversification for your portfolio by company size, look for three categories:

- **Large** – sales over $4 Billion
- **Small** – sales under $400 Million
- **Medium** – sales between $4 Billion and $400 Million

**A Large Company**

Your level of risk changes according to the size of company. A large company can be the most conservative investment. It usually has a long track record that you can assess, the management may be experienced, the company is in a slower but steady growth phase, and it pays a dividend. Such a company may tend to have a more stable stock price, because the market sees it as a safe haven. The downside is that the sales and earnings growth rates are likely to be less than 10%.

**A Small Company**

A small company is the riskiest category. It often has management that is less experienced or consists of a small number of leaders, it may be selling a product that is new to the marketplace, it is in the rapid growth phase of its life (requiring lots of cash), and it pays no dividend. A small company tends to have a more volatile stock price because the market deems it a riskier investment and tends to buy and sell more frequently. The upside is that sales and earnings growth rates are likely to be 15% or much more if the company is successful.
This form helps you to compare two companies in order to find the best.

Overview

The long-term investing philosophy used in Stock Analyst suggests carefully studying a company before buying and then only selling when a material change occurs in the company. However, the Challenge Tree provides a systematic way to challenge an existing holding in your portfolio with another company of greater potential. The Challenge Tree emphasizes the future potential of the companies, stresses good management, and guides you to buy at a good price for price appreciation. Using judgment is crucial, so it is important to understand the companies well.

Becoming Informed

Before using the Challenge Tree, the company in your portfolio should be updated with the latest information. You should have done a recent SSG, and have PMG and PERT windows detailing the history of the company since you purchased it. The challenger stock should be researched as thoroughly as possible, using the techniques in Stock Analyst, in order to make informed comparisons to the stock in your portfolio.

There are a number of fundamentals to examine for each company.

1. Check the SSG graph to see whether the quarterly revenues and EPS are on track with your projection lines. Note the percentage quarterly growth over the same quarter a year ago. (Use the Recent Quarterly Figures button to see this window.)

2. Next, you should view the PERT window to examine the quarterly results for EPS, revenues, and pre-tax income. Note whether the growth has slowed.

3. Check the yearly management numbers and trends in the SSG analysis. Read the latest company report. Decide whether this information in conjunction with the PERT numbers show that management has done a good job of growing the company and maintaining profit margins. Do you expect their strategy to reward investors?
4. Check the valuation of the company. Is it overvalued, with an upside/downside ratio of less than 1 to 1 and a current price to earnings (P/E) ratio (based on EPS 12 months ahead) higher than the 5-year average P/E ratio? If so, you may wish to challenge the company with another of better quality and value. Look for a company with the upside/downside ratio 3 to 1 or greater and the current P/E ratio equal to or less than the 5-year average P/E ratio.

After preparing yourself by reviewing this information, you are ready to complete the Challenge Tree comparative form. Stock Analyst will fill in the numbers for you from your database. The remainder of the form requires your input of ratings, based on your knowledge of the two companies.

### Making Decisions

The challenger stock must be of equal or higher quality and have greater potential for gain. Look at the financial ratings. Check the management judgments you made. Search for sound reasons for the stock to make a substantial price move within the next 6 to 18 month period. Look for a company in the lowest third of its 5-year price range with the potential to grow through price appreciation in 5 years to twice its current price. An upside/downside ratio of 3 to 1 is a benchmark from which to start. Check the % gain to the 5-year high price and the loss to the 5-year low.
Do not continue to hold lesser quality stocks, especially in a bull market. When the eventual downturn in the market comes, financially strong and growing companies will best cope with the situation.

Also remember that just because a company has reached its goal of doubling in price, it is not necessarily time to sell. It is time to re-evaluate the company, using all the information available, in order to make an informed decision about prospects for the next few years. If you sell all your winners, you will only be left with losers!

Cost of Switching

If you are replacing an existing holding, you may want to assess possible financial consequences of doing so. Right click on the form and select “Cost of Switching” or use the Cost of Switching window (accessed through Portfolios) to determine the benefit.
Stock price changes constantly. Monitoring stock price helps you keep vigilant of potential company trends and potential undervalued or overvalued situations.

Introduction
The goal of the Portfolio Management Guide (PMG) is:
- \( \sum \) to record (typically once a month) the company’s share price.
- \( \sum \) to determine current value.
- \( \sum \) to determine if buying opportunities exist.

Value is determined in Part 3 of the SSG by calculating and assessing historical Price-Earnings ratios (PE Ratios). The historical average PE, as may be modified in Part 4 of the SSG, becomes the basis for value comparison in the PMG.

PMG Data
The data entry for the Portfolio Management Guide (PMG) is minimal. Basically, quarterly EPS and monthly prices are all you need. From this basic data calculations are made and reported and graphed in the PMG.

Other data for Parts 1 and 2 is derived from a completed SSG.

Part 1 and 2
Each time you apply judgment to Part 3 and modify PE Ratios in Part 4 of the SSG, the average high and low PE figures are transferred to Part 1 of the PMG. These PE Ratios are automatically recorded in columns 2 and 3. The data from the current SSG study sets the targets in the PMG for the current’s year assessment of value as measured by the PE ratio.

Stock Analyst also allows you to enter and edit historical PE ratios in Part 1. Generally, this should not be done as historical valuations in Part 1 are de-
rived from the SSG by applying judgment and will be changed as the SSG is updated.

### 1. PRICE EARNINGS ZONES

<table>
<thead>
<tr>
<th>YEAR</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Average Price Earnings Ratios for Previous 5 Years</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>High</td>
<td>Low</td>
<td>High PE Guide Line</td>
<td>Low PE Guide Line</td>
<td></td>
</tr>
<tr>
<td>1997</td>
<td></td>
<td></td>
<td></td>
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<td></td>
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<tr>
<td>2001</td>
<td>28.4</td>
<td>17.8</td>
<td>47.2</td>
<td>23.6</td>
<td>56.4</td>
<td></td>
</tr>
</tbody>
</table>

### 2. PRICE ZONES

<table>
<thead>
<tr>
<th>YEAR</th>
<th>1. Consider Buying Below</th>
<th>2. Consider Selling Above</th>
</tr>
</thead>
<tbody>
<tr>
<td>1997</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1998</td>
<td></td>
<td></td>
</tr>
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<td></td>
<td></td>
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<tr>
<td>2000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2001</td>
<td>51.04</td>
<td>82.08</td>
</tr>
</tbody>
</table>

### 3. CUMULATIVE EARNINGS AND CURRENT PRICE EARNINGS RATIO COMPUTATIONS

| 05/97 | 0.34 | Apr 97 | 30.60 | May 97 | 31.56 | Jun 97 | 53.38 |
| 06/97 | 0.54 | Jul 97 | 52.72 | Aug 97 | 29.97 | Sep 97 | 31.97 |
| 07/97 | 0.31 | Oct 97 | 30.46 | Nov 97 | 32.56 | Dec 97 | 32.75 |
| 08/97 | 0.37 | Jan 98 | 35.41 | Feb 98 | 37.41 | Mar 98 | 37.56 | 27.7 |
| 09/97 | 0.58 | Apr 98 | 50.56 | May 98 | 32.89 | Jun 98 | 50.9 |
| 10/97 | 0.43 | Jul 98 | 41.71 | Aug 98 | 36.56 | Sep 98 | 43.44 | 20.2 |
| 11/97 | 0.56 | Oct 98 | 56.06 | Nov 98 | 48.56 | Dec 98 | 48.56 | 23.0 |
| 12/97 | 0.44 | Jan 99 | 54.58 | Feb 99 | 55.88 | Mar 99 | 45.38 | 20.7 |
| 01/98 | 0.39 | Apr 99 | 54.58 | May 99 | 44.58 | Jun 99 | 28.8 | 22.6 |
| 02/98 | 0.30 | Jul 99 | 40.34 | Aug 99 | 38.86 | Sep 99 | 36.31 | 25.1 |
| 03/98 | 0.43 | Oct 99 | 52.36 | Nov 99 | 52.36 | Dec 99 | 55.19 | 22.1 |
| 04/98 | 0.46 | Jan 00 | 53.44 | Feb 00 | 54.44 | Mar 00 | 44.56 | 27.0 |
| 05/98 | 0.31 | Apr 00 | 41.63 | May 00 | 39.58 | Jun 00 | 47.58 | 23.4 |
| 06/98 | 0.42 | Jul 00 | 51.63 | Aug 00 | 50.63 | Sep 00 | 48.44 | 27.0 |
| 07/98 | 0.67 | Oct 00 | 54.66 | Nov 00 | 57.66 | Dec 00 | 57.66 | 33.7 |

The remaining columns in Part 1 are calculated from the historical average.
PE Ratios. Columns 4 and 6 are then used as guidelines to assess current PE as calculated in Part 3 of the PMG.

Part 2 information is also derived from the SSG Part 4 once high and low prices are set. These price zones (buy below and sell above) are guidelines to assess the current price as entered in Part 3 of the PMG.

**Part 3**

Two pieces of data are required for Part 3: monthly prices and quarterly EPS. Keep in mind that the objective of PMG is to monitor the on-going value of the company. Having extensive historical data is not as important as assessing current information. The information entered is used to calculate on-going PE Ratios so that current value can be assessed.

**Quarterly EPS**

If you have completed the SSG, you will likely have some quarterly EPS data. These will show in the Quarterly Data Entry window. Adding/editing information here will also change it for the SSG.

**Estimated EPS**

This data may have already been entered for the SSG. If not, you may either enter it in the PMG Quarterly Data window after the current quarter.

Estimated quarterly EPS is used in the SSG and PERT Report to calculate lead PE Ratios. For more information on lead PE Ratios see that section in Stock Analyst.

If only yearly estimated EPS is available, you should review and consider seasonal variations when recording estimated quarterly EPS. Seasonal variations vary from company to company and industry to industry. Assess the extent of this variation from previously reported quarterly EPS and use this to allocate estimated figures.

The following example demonstrates the process of allocating proportional amounts to a company whose business contributes 70% in the first quarter and 10% for each of the remaining 3 quarters.

<table>
<thead>
<tr>
<th>CURRENT YEAR ESTIMATED EPS $1.00</th>
<th>NEXT YEAR’S ESTIMATED EPS $1.50</th>
</tr>
</thead>
<tbody>
<tr>
<td>Q1</td>
<td>Q2</td>
</tr>
<tr>
<td>$0.70</td>
<td>$0.10</td>
</tr>
</tbody>
</table>

**Monthly Prices**

Enter monthly prices in the PMG Data Entry window. These represent share prices at some time during the month. You may choose a time convenient for
you: at the end of the month or before a club meeting. There is ample flexi-
arity as to when you enter this data, but do try to be regular in managing
your stocks.

For easier identification, the Data Entry window groups monthly prices by
the calendar year. Within the PMG, data are grouped and plotted based on
the company’s fiscal year.

Both keyboard and Internet updating of prices will automatically update the
monthly price in the PMG.

**PE Calculations**

Once quarterly EPS and monthly prices are entered, the PE columns of Part 3
are calculated. PE Ratios are calculated from the cumulative 4 quarters of
EPS in column 3 and the monthly prices. PE Ratios are not calculated if the
cell in column 3 is a negative value.
Part 4 - PMG Graph

Information plotted on the PMG Graph is derived from data previously entered. The only action needed may be the adjustment of scales for the items plotted: Price, PE, and RV (Relative Value). Click a data line with the right mouse button to move it up or down for better viewing.

Quarterly EPS

The company quarterly reports are the best source for this information. You should subscribe to the company’s information by having your name added to their shareholder list to receive annual and quarterly reports. Many companies provide this service through the Internet. Visit the company’s web site to subscribe to this information.

Interpretation

Part 1 and 2

Parts 1 and 2 of the PMG record information from the SSG.

In Part 1 the average high and low PE Ratios become the basis for on-going valuation assessment. These numbers yield calculations for high and low PE guides. These are used in Part 4, the PMG Graph, to set lower and upper limits for PE below which a buying opportunity may exist and above which a re-assessment should be made to determine if a selling condition should be considered.
Part 2 of the PMG records price targets for comparison with the current stock price. The Buy Below and Sell Above prices are developed in Part 4 of the SSG. You may choose how the zones are calculated. Refer to the SSG section for more information on zoning.

<table>
<thead>
<tr>
<th>YEAR</th>
<th>1. Consider Buying Below</th>
<th>2. Consider Selling Above</th>
</tr>
</thead>
<tbody>
<tr>
<td>1997</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1998</td>
<td></td>
<td></td>
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<tr>
<td>1999</td>
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<td>2000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2001</td>
<td>53.02</td>
<td>64.04</td>
</tr>
</tbody>
</table>

**Editing Part 1 and 2**

Normally editing is not required as this data is the result of applied judgment in the SSG. If you do enter this information you may refer to the historical average PE Ratios in the PERT B.

If you are using imported datafiles, Parts 1 will display historical PE’s and Part 2 will only display the most recent year. Parts 1 and 2 will only fill in if you are keying data manually.

**Options**

The following options are available and are set from the Options/Preferences menu item.
The two options for the High PE guide line calculation shown on the PMG Graph are:

- 1.5 times the Low PE Guide
- the selected average high PE as in column 2.

Using the average high PE selection gives a High PE guideline that reflects the characteristic nature of value for the company.

This zoning selection is made in the SSG Analysis Part 4 and its results affect the calculations and graphics in the PMG. The default zoning is specified in Options | Preferences | SSG Analysis. The zoning can be selected for a particular SSG by right-clicking the selection in Part 4 of the SSG.

**Part 3**

Company value is monitored and assessed monthly in Part 3 of the PMG. Value is assessed from the current PE of the company. PE is calculated from the current price and the sum of the latest 4 quarters of EPS shown in Column 3.

If quarterly EPS is not yet be available but estimated EPS has been entered, the program will use these figures to calculated PE Ratios.
When no EPS is entered, the PE is calculated from the previous accumulated 4 quarters EPS. The PE Ratios will be recalculated when reported EPS is entered.

Note that PE Ratios are not calculated for negative EPS and N/A is shown.

**Assessing EPS**

The first step in Part 3 is to assess EPS. EPS in column 2 may show variability due to seasonal trends. For example, the retail industry generally has greater sales and EPS in the winter months than in the summer. Some retailers do the bulk of their business over the Christmas period. On the other hand, beverage companies tend to sell more drinks in the summer.

Being aware of seasonal changes provides insight into quarterly trends.

**Cumulative 4 Quarter Earnings**

By adding 4 quarters of EPS, variations from seasonal characteristics are minimized. In column 3 you want to see constantly increasing EPS figures. Figures that are not increasing consistently indicate possible problems. Find out what may be restricting EPS growth. Dips or flattening of the cumulative 4 quarters EPS could be an early alert that not all is well and further investigation is needed.

**Assessing PE Ratios**

Once you have determined that EPS meets your expectations you will want to assess value through the PE calculations in Part 3.

The most direct approach to using the PMG is to compare current value to your targets as set in the SSG Part 3 and 4 (and reported in Part 1 of the PMG) and the current valuation in the PMG in Part 3.

A current PE that is near the high average PE or the High PE guideline suggests an overpriced condition. When PE approaches this level you will want to re-assess the company for material changes. If growth and profit margins are meeting your expectations then you may keep the company rather than sell it. It could well be that investors are finally realizing the value and quality in the company, thus driving PE Ratios higher.

A current PE that is lower than the average may indicate a possible buy opportunity. Again confirm that the company is meeting your targets. Consistently performing companies are eventually recognized and patience is rewarded. Long-term growth stock investors look to do well by buying and holding quality high growth stocks and making additional purchases on price dips.

**The Market and PE Ratios**

PE Ratios will vary over time due to economic and market factors. In opti-
mistic times PE Ratios will expand while in pessimistic times PE Ratios contract. When assessing value, consider the current economic cycle and where the cycle may be in the next 5 years. This understanding helps you determine whether value is driven by the market’s recognition of the company’s achievements or something else.

Another way to determine value is to assess the company’s industry. Is the company performing better (growing sales and EPS) than its peers? If so, then the increasing PE Ratios in the PMG may be justifiable.

**Characteristic PE**

Investors value a company based on both the company’s historical achievements and future expectations. Investor sentiments change over time. Typically the changes in value fall within well-defined figures that can be characterized by the low and high average PE calculations in the SSG. The range between the low and high average PE Ratios is said to be characteristic of the company. This characteristic range serves as a guide to measure current value to help make investment decisions.

**PMG Graph**

The PMG Graph is the graphical representation of the information in the PMG Parts 1, 2, and 3. The plots for monthly prices and the corresponding PE Ratios help visualize how the market values the company.

The PMG Graph shows how price, PE, and RV (relative value) compare to the expectations set in the SSG. Price items show in blue and PE items in red. Scales for each are color-coded and may be altered by clicking on a plotted line with the right-mouse button and selecting from the pop-up menu.

**Optional PMG Graph Representation**

By default, the graph uses horizontal lines for price zones and PE guidelines. You may choose the alternate vertical bar representation. This choice shows the middle zones for both Prices and PE as colored bars. The blue price bar
indicates the Hold Zone in Part 2 of the PMG (Part 4 of the SSG). Below the bar is the lower or Buy Zone; above the bar is the upper or Sell Zone. For the red PE bar below would be the Low PE guide, above the High PE guide.

You may also change the scale for the plotted lines. Generally the program sets scales based on the data range. However, there may be occasions where you wish to specify the scale. To change scales, click the data line (prices, PE, or RV) with the right mouse button and choose Move Up or Move Down. This changes the scale factor for the chosen item and moves the line. Reset allows you to set to the computer scale.

**Monthly Price Plot**

Monthly prices as recorded in the Monthly Price Data Entry window are plotted in blue. The scale is shown on the left side, also in blue.

**Market Factors**

Generally share price will increase as EPS increases. However, the general market can make share price vary more radically and this presents some difficulties. You must try to distinguish between share price changes due to market factors and those driven by a company’s continuing success.

Market factors can be short term (news reports) or long term (economic cycles lasting years). Assessing this information will help you understand your company better.
**Price Trends**

You may notice a flattening or decreasing price trend on the PMG Graph. This occurs when price is not increasing (or even decreasing) even though EPS is improving. It could be that a buying opportunity exists or alternatively that something else not yet apparent to you is affecting the company. Investigate company activities such as increases in debt, acquiring other businesses, liquidating major assets, changing markets, etc. These may provide clues as to why other investors may be selling and driving the share price lower.

**Current Price**

Note the location of the current price (the last point in the blue line) in relation to the zone guides. As share price approaches the Sell Above line you may want to re-assess the company to determine whether you still want to keep it. As indicated previously, when a company maintains its capability for growth and profits you will likely want to hold on to it for the long term.

**PE Plot**

PE plots generally move within well-defined limits dictated by the historical average high and low PE Ratios. These limits are characteristic of the company and indicate potentially undervalued or overvalued conditions. Use the PE plot in a similar manner to the price plot. If PE Ratios are getting out of the characteristic range, try to determine if this is caused by the company or symptomatic of the industry or general market. This additional information will help you to assess the company’s value.

**Relative Value (RV) Plot**

Relative Value is a ratio that may indicate undervalued and overvalued conditions. RV is calculated from the following formula:

\[
RV = \frac{\text{Current PE}}{\text{Historical Average PE}} \times 100
\]

The historical average PE becomes the benchmark for determining value, i.e. a value that is greater than 100 would be considered overvalued.

Be aware that RV may not be a consistent indicator of value. RV of 150 may mean very different things for different companies. An RV of 150 indicates that the current RV is high with respect to the historical average PE. However, it may still be lower than the average high PE as noted in the example below.

<table>
<thead>
<tr>
<th>AVG. LOW PE</th>
<th>AVG. PE</th>
<th>AVG. HIGH PE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Company A</td>
<td>10</td>
<td>20</td>
</tr>
<tr>
<td>Company B</td>
<td>15</td>
<td>20</td>
</tr>
</tbody>
</table>

In the above example both companies have an average PE of 20 (even though...
their characteristic and Low PE is quite different). An RV of 150 would indicate a PE of 30 for both companies. However, for company B this would indicate a PE way beyond its characteristic high PE; not so for company A. Be cautious when reviewing RV.

This same example demonstrates the reason that you would want to use the Average High PE option as the High PE Guide in Part 1 of the PMG.

**A Buying Opportunity**

Review the historical price changes in relation to the price zones (blue horizontal lines or bar). You may consider purchasing more shares if:

- the current price is below the Buy Below price target,
- the current PE is lower than the Low PE Guideline (or average PE in the SSG),
- all other indications in your assessment are positive.

For a company that is sound, these conditions could imply a buying opportunity. It would seem that investors are not recognizing the company’s achievements.

Before making a buy decision, you will want to update your SSG to confirm that all company characteristics (growth, quality, value, and risk/safety) are in your favor.

---

**Formulas**

Calculations for the PMG are shown on the report.

The calculation for Relative Value (RV) in the PMG Graph is:

\[ RV = \left( \frac{\text{Current PE}}{\text{Historical Average PE}} \right) \times 100 \]
14: Portfolio Evaluation Review Technique

The Portfolio Evaluation Review Technique (PERT) forms help you to manage your stocks. Review company performance quarterly by examining sales, earnings, and profits.

Introduction

Whereas PMG tracks value of each stock on an on-going basis, worksheets PERT A and B record and calculate data items to track growth and profitability on a quarterly basis. PERT Report gives a summary of all your stocks in each portfolio on one worksheet that is handy for club meetings. It quickly and effectively highlights company results versus your expectations.

PERT Data

PERT A

PERT A report requires quarterly data for EPS, pre-tax profit (also called pre-tax income), sales and net income or tax rate. As with other data, all the necessary data is available in the datafiles.
The selection for the type of data to enter (i.e. tax-rate or pre-tax income, etc) is set within the Companies Data Entry window, Options tab.

**Quarterly EPS**

Having entered data for the PMG, you should see the quarterly EPS data in the Data Entry window. Review the PMG Data Entry section for information on quarterly EPS data.

**Quarterly Pre-tax Profit**

The best source for this information (other than the datafile) appears to be company reports.

**Quarterly Sales**

As with quarterly EPS, the best source for quarterly sales figures are the quarterly and annual reports from the company. Subscribe to the company’s shareholder list to receive annual and quarterly reports. Many companies provide this service through the Internet. Visit the company’s web site to subscribe to this information.

Historic quarterly sales information (going back 3 or more years) appears to be less readily available. You may choose to use a source like Value Line or S&P reports. However, as previously stated, it is not overly important if you don’t have extensive quarterly information, as long as you maintain the on-going progress of the company.
Quarterly Net Income or Tax Rate

Normally tax rate is not reported on a quarter by quarter basis. Net income most often is included in the company’s reports. Neither Value Line nor S&P include this information in their company reports.

The data entry Options section for the SSG allows you to choose (and switch) between net income and tax rate. Tax rate can be calculated from net income and pre-tax profit with the formula:

\[
(1 – \text{net income}/\text{pre-tax profit}) \times 100.
\]

Stock Analyst uses this formula to convert between the related items.

You may switch between the two items (net income and tax rate) using the Data Entry/Options tab.

It is not recommended that you approximate tax rates by using a previous year’s results. As the purpose for PERT is to monitor on-going company results, the fabricated figures using past results lead to potentially misleading conclusions. If you are not using datafiles, take the time to find the correct information from the company’s web site or quarterly reports.

PERT B

PERT B uses the historical yearly data to calculate PE Ratios, payout, and dividend yields. This data should already be available as it is also used for completing the Stock Selection Guide.

PERT Report

PERT Report is an accumulation of information generated from other reports. It does not need any additional data. Should you note blank information, review that company’s SSG, PMG, and PERT reports to ensure that they were completed. Once you have confirmed that all data is entered and judgment added (where necessary), save the company record to the Stock Analyst database and refresh the PERT Report.

PERT A

PERT A is a worksheet where calculations from the quarterly data provide additional information about growth and profitability. Enter and edit data for PERT A in the PERT Data Entry window. The convenience of purchased datafiles is that all the information for 5 years (20 quarters) of data is readily available for your assessment.

Calculations

The PERT A report is divided into 2 side-by-side areas: Quarterly Data and
Last 12 Months Data.

The Quarterly Data area looks at quarterly progress. Growth calculations are based on a quarter-over-quarter comparison with results 1 year earlier.

The Last 12 Months Data area calculates growth and profitability items based on a running 4-quarter figure and compares this with the 4-quarter figure a year earlier. The running 4-quarters calculation helps smooth variations due to possible seasonal effects in company results.

**Note the smoothed effect on the 12 month (moving 4 Quarter) lines (JNJ).**

Calculation details are covered in the Formulas section.

**Short-term Assessment – Quarterly Data**

The latest quarterly information is a record of the company’s short-term achievements and is important for tracking how the company is performing. The yellow line highlights the latest information. Focus your attention on this line of information to assess latest or short-term results.

**Growth Assessment**

The columns titled % Change (Columns D, G, and I) are keys that you can use to assess short-term performance for growth. Specifically, in the Quarterly Data area these are Sales % Change, EPS % Change, and Pre-tax Profit % Change.

Focus on the highlighted yellow line for the latest quarterly results. Look for
% Change figures that match your sales and EPS projections in the SSG Graph.

Next assess the Last 12 Months of Data area for its % Change figures for growth. As with the Quarterly Data area, these should also fall in line with your expectations.

Variations on Growth Assessment

Often interim changes (quarter to quarter) are more variable than yearly changes. Changes (quarterly and especially 12-month changes) that are below your SSG projections require investigation. Find out the cause for the unexpected change. Determine if the cause is characteristic (a recurring issue) of the company or explainable as a one-time occurrence.

| PERIOD | EPS | PRE TAX PROFIT | SALES | INC T P.
|--------|-----|----------------|-------|------
|        | $    | % CHANGE       | $/ML  | % CHANGE | $/ML | % CHANGE |
| 03/01  | 0.34 | 13.0%          | 739.8 | 26.6%     | 2,900.4| 2       |
| 06/01  | 0.31 | 11.3%          | 812.5 | 22.8%     | 2,665.2| 2       |
| 09/01  | 0.37 | 12.1%          | 738.1 | 25.6%     | 3,118.1| 4.1%    |
| 03/02  | 0.36 | 11.8%          | 813.3 | 26.5%     | 3,068.6| 6.7%    |
| 06/02  | 0.35 | 14.8%          | 738.5 | 24.3%     | 3,085.8| 6.0%    |
| 09/02  | 0.41 | 10.8%          | 899.8 | 26.1%     | 3,330.4| 6.8%    |
| 03/03  | 0.44 | 14.3%          | 929.8 | 28.0%     | 3,313.3| 8.8%    |
| 06/03  | 0.42 | 10.5%          | 895.8 | 27.5%     | 3,259.2| 6.3%    |
| 09/03  | 0.50 | -14.3%         | 850.1 | 20.7%     | 3,157.2| 3.3%    |
| 12/03  | 0.43 | 14.9%          | 922.2 | 26.6%     | 3,467.9| 4.1%    |
| 03/04  | 0.46 | 2.3%           | 949.3 | 28.3%     | 3,363.2| 1.2%    |
| 06/04  | 0.44 | 4.8%           | 938.6 | 27.9%     | 3,370.7| 3.4%    |
| 09/04  | 0.40 | 40.0%          | 989.2 | 27.0%     | 3,317.9| 5.8%    |
| 12/04  | 0.43 | 14.0%          | 1,032.1| 27.9%    | 3,704.7| 6.8%    |
| 03/05  | 0.34 | -131.1%        | -388.7| -10.9%    | -1,409.9| 6.2% |
| 06/05  | 0.34 | -22.7%         | 662.5 | 16.2%     | 4,099.1| 21.8%  |
| 09/05  | 0.45 | 7.1%           | 1,085.8| 27.0%    | 4,359.9| 6.2%    |
| 12/05  | 0.51 | 4.1%           |       |          |       |        |
| 03/06  | 0.56 | -500.0%        |       |          |       |        |
| 06/06  | 0.55 | 61.8%          |       |          |       |        |

Be careful of too many one-time occurrences, as they may indicate an unstable business. One-time occurrences or any other reasons for a shortfall from

Caution
expected results should be recorded in the Notes section (Company Data Entry window or File/Notes menu) for future reference. Your recorded comments serve as a powerful reminder when making future investment decisions.

**Profitability Assessment**

Three columns (E, F, G) assess the latest profitability figures. They are titled Pre-tax Profit: $ Mil, % of Sales, and % Change. Compare these results with the yearly figures calculated in Part 2A of the SSG.

As with other quarterly results, these figures tend to vary. Ideally, they vary little from historical results. Consistency confirms that the company is in control of its business and provides you with greater confidence that your expectations will be met.

**Variations on Profitability**

Larger variations (figures varying 30% or more from the historical average) should be investigated. These should be red flags to alert you to the need for investigation. Knowing the cause of changes will enable you to gauge the long-term impact on the company.

**Long-term Assessment – Yearly Data**

Long-term assessment in PERT A involves reviewing all the historical information to discern potential trends. Review each of the % Change columns (R, S, T and N) for Sales, EPS, Pre-tax profit, and profitability (pre-tax profit on sales). The ideal is to see figures that are consistent through time or with minor variations.

Figures with wide variations (especially for the Last 12 Months Data area) indicate that management is having difficulties controlling the company’s business. The task of estimating the company’s future is therefore more difficult and the risk of your investment increases.

Small % Changes are less discernable but if you have 4 or 5 years of quarterly data you should be able to spot this. This information may be spotted in the yearly SSG figures but is typically more apparent in PERT A. Changes that show slow deterioration are likely signs of a maturing company or industry. Your research should identify this.

General economic conditions may also play a role. Expect that as the economy moves, so will companies’ fortunes. You want to identify the cause for deteriorating conditions. External factors such as from the general economy may prove to be a buying opportunity. Deteriorating internal factors are potential sell indications.
PERT Graphics

The PERT Graphics report helps to visualize the calculations of PERT A. PERT Graphics plots the % Change columns (sales, EPS, and pre-tax profit) and the pre-tax profit on sales from PERT A.

Review each of these graphs in turn. You will note similarities in the plotted information, i.e. a drop in sales will typically affect pre-tax profit and EPS. These relationships will be more apparent as you become familiar with reviewing PERT data.

Ideally these plots would be flat lines indicating consistent company performance. More often they fluctuate. From these fluctuations you should be able to identify possible areas of concern.

Observe the short-term results of the latest quarterly point with respect to the horizontal green line in the graph. The horizontal green line represents the projected growth in the SSG Graph.

Also observe the long-term trend to see if results are maintained or are deteriorating (sloping down).

Changes (either in short-term or long-term results) from your expectations are red flags alerting you to understand the circumstances facing the com-
pany. Satisfy yourself that the company is still the quality company that you assessed with the SSG.

PERT B

PERT B is a worksheet that records value information from the SSG. It summarizes this for later inclusion in the PERT Report. It also serves as a recording of historical figures to be used in assessing the company.

PE Assessment

<table>
<thead>
<tr>
<th>Company</th>
<th>Clayton Homes CDM (CG)</th>
<th>AMGEN INC (AMGN)</th>
</tr>
</thead>
<tbody>
<tr>
<td>NGE</td>
<td>PIE RATIO</td>
<td>NGE</td>
</tr>
<tr>
<td>LOW</td>
<td>HIGH</td>
<td>LOW</td>
</tr>
<tr>
<td></td>
<td></td>
<td>HIGH</td>
</tr>
<tr>
<td>1.36</td>
<td>13.5</td>
<td>2.35</td>
</tr>
<tr>
<td>2.72</td>
<td>21.3</td>
<td>6.16</td>
</tr>
<tr>
<td>3.70</td>
<td>31.1</td>
<td>8.89</td>
</tr>
<tr>
<td>7.12</td>
<td>28.1</td>
<td>4.34</td>
</tr>
<tr>
<td>6.64</td>
<td>24.2</td>
<td>7.02</td>
</tr>
<tr>
<td>6.80</td>
<td>25.3</td>
<td>12.84</td>
</tr>
<tr>
<td>3.92</td>
<td>20.1</td>
<td>11.22</td>
</tr>
<tr>
<td>10.08</td>
<td>19.5</td>
<td>11.66</td>
</tr>
<tr>
<td>10.70</td>
<td>19.7</td>
<td>25.63</td>
</tr>
<tr>
<td>10.00</td>
<td>14.5</td>
<td>50.00</td>
</tr>
</tbody>
</table>

Segments from PERT B showing characteristic PE ranges and volatility.

For steadily performing companies the historical average PE Ratios will be consistent from year to year. You may note increases or decreases that are attributable to industry or market changes. Market factors have direct influence on all stocks: increasing PE Ratios in times of optimism and decreasing during pessimistic economic conditions. Your task is to assess these possible changes in light of what has happened in the industry or the economy.

Consider how your company has fared in relation to the general market. Reviewing the 10 years of historical PE Ratios should provide a basis of this comparison. Look for the characteristic PE Ratios (the high and low average...
PE Ratios) to see how they trend and compare them to the market and the economy. Your company should show trends that are at a minimum performing as the economy or the market.

The variation between the high and low average PE Ratios is an indication of volatility. The larger the variation, the higher the risk and the more difficult it is to assess the company. Typically, the smaller the gap between high and low average PE Ratios, the more consistent the company and the easier it is to study.

**Payout Assessment**

% Payout is the portion of EPS that is paid to shareholders in the form of dividends. The remaining portion is retained by the company and used to fund business activities.

Generally we would look at investing in growth companies. Growth companies often require money to expand their business. Retained earnings is one source of funding for future growth. By paying dividends rather than retaining them all, the company is restricting its growth resources.

Most companies have a clearly defined dividend payment policy. This means that as EPS grows, the dividend paid to shareholders also grows. Investors view dividends as a source of stable and growing income and like to invest in such companies. This helps to support the share price of the company (review section 4Bd of the SSG).

For this reason companies are reluctant to reduce dividends and will occasionally borrow if earnings are insufficient to pay the expected dividends. This precarious condition can cause you to lose in two ways. A dividend cut (because of insufficient earnings) will reduce or eliminate your dividend income. You will lose again from the share price drop that results from a dividend cut.

By monitoring % Payout you can assess the risk of a high ratio. Anything above 60% is cause for concern. Also, ratios higher than 20% likely affect growth potential for the company. Review the historic % payout and determine if recent payout ratios are consistent.

Note that some industries (i.e. utilities) are known for their high dividend yield policies and high payout ratios should be expected.

**PERT Report**

PERT Report, accessed from List Menu | Portfolio | PERT Report is the accumulation of recent data and calculations from other reports: SSG, PMG, PERT A, and PERT B. Its objective is to give you a one-page information summary that helps you determine if a company is meeting your expectations.
for growth, quality, value, and risk.

Here are some suggestions for reading this report. For each of the column groups compare the actual results to the expectations in the SSG. First do this for EPS, sales, and pre-tax profit. Do the same for the other column groups, noting the current value. Do the quarterly figures meet your expectations?

This report may include up to 50 company studies. You or your club may use PERT Report as a monthly summary of your stocks. The concise PERT Report is an efficient method for informing members on recent company achievements.

Growth Assessment
Review columns H and J for quarterly growth of EPS and sales. Within the same cells for sales and EPS, note the growth as projected in the SSG Graph. Comparing actual results with your expectations will help you monitor company performance and manage each stock in your portfolio.

Quarterly changes that do not meet your expectations need to be researched. You may have done this when you first updated the quarterly information and noted the information in the SSG or PERT A. Your recorded notes will remind you of circumstances of companies that have missed their targets.

**Quality Assessment**

Look at column L and compare the profitability (pre-tax profit as a % of sales) for the two reported periods. A substantial change from the year before is an alert that requires investigating. Review the possible causes for the change and be satisfied that they are reasonable.

Make sure that you note and understand the difference between columns L and M. Column L is pre-tax profit as a % of sales and is equivalent to figures in Part 2 A of the SSG. Column M is the % change in pre-tax profit and is related to % change (or growth) for EPS and sales. Compare this with the sales and EPS growth figures: they should be similar.

**Value Assessment**

Along with information in the PMG, you may assess value from figures in columns P and R. Keep in mind that these figures are calculated using Estimated EPS from column E as may be shown in the SSG Part 3. Review the Projected PE in section on the 3 choices of estimated EPS available.
Value is also monitored from figures in column W by assessing PE with respect to the expected EPS growth rate.

The reason for using an estimated EPS in PERT is to be forward looking – assessing value based on anticipated earnings. The market as a whole is anticipatory and looks forward to the company’s future potential growth. The Lead PE in column P and Lead RV (relative value) in column R are figures that help assess this expectation of the future.

**Lead PE and Lead RV**

Lead PE should be compared to the 5-year high, average, and low PE Ratios in columns S, T, and U. These figures are derived from Part 1 of the PMG. A stock could be over priced as the lead PE approaches the high PE. At that point you would want to review the company to assess that it still meets your investment objectives. Extremely low PE Ratios (those that are lower than the average low PE) also indicate potential problems. Investors are selling stock and bidding the price lower in possible anticipation of a poor future for the company.

RV (column R) is a ratio that compares the current PE to the anticipated average PE for the company. It can be used in the same way as the PE comparison above. Values of RV greater than 150 suggest a potentially over priced stock. Review the Relative Value topic in the PMG Graph section to understand the peculiarities with RV.

**PE and EPS Growth**

Column W calculates the PE to projected EPS growth ratio, also known as the PEG ratio. Peter Lynch considers this an important measure of value. Generally a ratio that is 150 or higher may indicate an over priced stock. As with RV, you would want to review and reassess the company to determine if it still meets your investment objectives.

**Risk Assessment**

Columns Y and Z report Upside/Downside Ratio and Total Return. They are calculated from the low price (Column AA) and the high price (Column AB). The high and low prices are referenced in Columns AA and BB. Note that Column AB (the high price) is calculated using the estimated EPS in Column E.

Column Y shows the Upside/Downside Ratio. If the ratio falls near a value of 1 it indicates a poor reward for your investment.

In Column Z a Total Return of less than 8% may suggest that the investment may not meet long term investment goals.
PERT Report – Estimated EPS

PERT Report calculates some figures that are unique and not related to other reports. These are columns P, R, Y, Z, and AB that use the Estimated EPS figure as displayed in Column E for their calculations.

The SSG uses reported EPS figures for the latest 4 quarters when calculating current PE. Here in PERT Report we also look at value based on the anticipated EPS. The reason for using an estimate of future earnings is to reflect the anticipatory nature of the stock market. Using estimated future earnings calculates a Projected PE along with other items calculated in Parts 4 and 5 of the SSG.

These items are:

- lead PE
- lead RV (relative value)
- estimated U/D ratio
- estimated Total Return
- estimated high price

For reference, the second row of Columns P and R show the trailing PE and RV figures recorded in the SSG.

Review the Formulas area for details on these calculations.

PERT Report Summary

The summary information in the PERT Report was previously reviewed in other reports. However, the concise PERT Report makes for a quick and simple report to share key information with other members of your club.

Remember that the results of PMG and PERT (including PERT Report) should lead you to confirm whether or not the company is meeting to your expectations set in the SSG. Variations from expectations alert you to explore the company further and discover if it still meets your investment objectives.

For specific sell conditions, review the When to Sell section.

Formulas

The following table lists definitions and formulas for the PERT reports.

<table>
<thead>
<tr>
<th>PERT A</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Col B/C</td>
<td>Quarterly EPS</td>
<td></td>
</tr>
<tr>
<td>Col D*</td>
<td>% Change in EPS*</td>
<td>((recent Q EPS/Year ago Q EPS) – 1) x 100</td>
</tr>
<tr>
<td>Col</td>
<td>Description</td>
<td></td>
</tr>
<tr>
<td>-------</td>
<td>-----------------------------------------------------------------------------</td>
<td></td>
</tr>
<tr>
<td>Col E</td>
<td>Quarterly Pre-tax Profit</td>
<td></td>
</tr>
<tr>
<td>Col F</td>
<td>Pre-tax Profit as a % of Sales*</td>
<td></td>
</tr>
<tr>
<td></td>
<td>({(\text{recent Q Pre-tax Profit} / \text{Year ago Q Pre-tax Profit}) - 1} \times 100)</td>
<td></td>
</tr>
<tr>
<td>Col G*</td>
<td>Pre-tax Profit % Change*</td>
<td></td>
</tr>
<tr>
<td></td>
<td>((\text{Col E} / \text{Col H}) \times 100)</td>
<td></td>
</tr>
<tr>
<td>Col H</td>
<td>Quarterly Sales</td>
<td></td>
</tr>
<tr>
<td>Col I*</td>
<td>% Change in Sales*</td>
<td></td>
</tr>
<tr>
<td></td>
<td>({(\text{recent Q Sales} / \text{Year ago Q Sales}) - 1} \times 100)</td>
<td></td>
</tr>
<tr>
<td>Col J</td>
<td>Quarterly Tax Rate</td>
<td></td>
</tr>
<tr>
<td></td>
<td>As entered or calculated from pre-tax profit and net income</td>
<td></td>
</tr>
<tr>
<td>Col K/L</td>
<td>Last 12 Months EPS (4 quarters)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Sum of the current and preceding 3 Quarters of Col B/C</td>
<td></td>
</tr>
<tr>
<td>Col M</td>
<td>Last 12 Months Pre-tax Profit (4 quarters)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Sum of the current and preceding 3 Quarters of Col E</td>
<td></td>
</tr>
<tr>
<td>Col N*</td>
<td>Last 12 Months Pre-tax Profit as a % of Sales (4 quarters)*</td>
<td></td>
</tr>
<tr>
<td></td>
<td>((\text{Col M} / \text{Col O}) \times 100)</td>
<td></td>
</tr>
<tr>
<td>Col O</td>
<td>Last 12 Months Sales (4 quarters)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Sum of the current and preceding 3 Quarters of Col H</td>
<td></td>
</tr>
<tr>
<td>Col P</td>
<td>Last 12 months Taxes</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Sum of the current and preceding 3 Quarters of (pre-tax profit – net income) as entered in the Data Entry window.</td>
<td></td>
</tr>
<tr>
<td>Col Q</td>
<td>Last 12 months Tax Rate</td>
<td></td>
</tr>
<tr>
<td></td>
<td>((\text{Col P} / \text{Col M}) \times 100)</td>
<td></td>
</tr>
<tr>
<td>Col R*</td>
<td>Last 12 Months % Change in EPS (4 quarters)*</td>
<td></td>
</tr>
<tr>
<td></td>
<td>((\text{Current year Col KL}) / \text{(Col KL 4 quarters back)})</td>
<td></td>
</tr>
<tr>
<td>Col S*</td>
<td>Last 12 Months % Change in Pre-tax Profit (4 quarters)*</td>
<td></td>
</tr>
<tr>
<td></td>
<td>((\text{Current year Col M}) / \text{(Col M 4 quarters back)})</td>
<td></td>
</tr>
<tr>
<td>Col T*</td>
<td>Last 12 Months % Change in Sales (4 quarters)*</td>
<td></td>
</tr>
<tr>
<td></td>
<td>((\text{Current year Col O}) / \text{(Col O 4 quarters back)})</td>
<td></td>
</tr>
</tbody>
</table>

* Asterisk items are graphed in the PERT Graph report.
### PERT B

<table>
<thead>
<tr>
<th>Column</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Col B</td>
<td>Yearly EPS</td>
</tr>
<tr>
<td>Col C</td>
<td>High stock price for the fiscal year of the company</td>
</tr>
<tr>
<td>Col D</td>
<td>Low stock price for the fiscal year of the company</td>
</tr>
<tr>
<td>Col E</td>
<td>Col C / Col B</td>
</tr>
<tr>
<td>Col F</td>
<td>Col D / Col B</td>
</tr>
<tr>
<td>Col G</td>
<td>Sum of the current and preceding 4 years of Col C divided by 5</td>
</tr>
<tr>
<td>Col H</td>
<td>(Col G + Col I) / 2</td>
</tr>
<tr>
<td>Col I</td>
<td>Sum of the current and preceding 4 years of Col D divided by 5</td>
</tr>
<tr>
<td>Col J</td>
<td>Yearly Dividend</td>
</tr>
<tr>
<td>Col K</td>
<td>(Col J / Col B) x 100</td>
</tr>
<tr>
<td>Col L</td>
<td>Sum of the current and preceding 4 years of Col K divided by 5</td>
</tr>
<tr>
<td>Col M</td>
<td>(Col J / Col D) x 100</td>
</tr>
</tbody>
</table>

### PERT Report

We have used square brackets [ ] to define more clearly specific items in the formulas, i.e. [Col P (top value)].

<table>
<thead>
<tr>
<th>Column</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Col B</td>
<td>Yearly Dividend, shown as 2nd line of column D</td>
</tr>
<tr>
<td>Col C</td>
<td>Company Name</td>
</tr>
<tr>
<td>Col D</td>
<td>Col B/Col Q</td>
</tr>
<tr>
<td>Col E</td>
<td>This is the selected Projected EPS in the Extras section in Part 3 of the SSG. There are 3 possible selections for this. Review the Projected PE section of this manual.</td>
</tr>
<tr>
<td>Col F</td>
<td>Quarterly date of last reported and recorded data. This is equivalent to the quarterly data highlighted with the yellow line in the data entry window.</td>
</tr>
<tr>
<td>Col G</td>
<td>The EPS for the corresponding quarter dated in Col F</td>
</tr>
<tr>
<td>Col H</td>
<td>(((\text{recent Q EPS/Year ago Q EPS}) - 1) \times 100)</td>
</tr>
<tr>
<td>Col I</td>
<td>The Sales for the corresponding quarter dated in Col F</td>
</tr>
<tr>
<td>Col J</td>
<td>(((\text{recent Q Sales/Year ago Q Sales}) - 1) \times 100)</td>
</tr>
<tr>
<td>Col K</td>
<td>The Pre-tax Profit for the corresponding quarter dated in Col F</td>
</tr>
<tr>
<td>Col L</td>
<td>(Col K/Col I) x 100</td>
</tr>
<tr>
<td>Col M</td>
<td>(((\text{recent Q Pre-tax Profit/Year ago Q Pre-tax Profit}) - 1))</td>
</tr>
<tr>
<td>Column</td>
<td>Description</td>
</tr>
<tr>
<td>--------</td>
<td>-------------</td>
</tr>
<tr>
<td>Col N</td>
<td>Sum of 4 Q of EPS starting with the latest Quarter (yellow highlighted data) and previous 4 quarters.</td>
</tr>
<tr>
<td>Col O</td>
<td>{(sum of 4 Q of EPS/Previous 4 Q) – 1} x 100</td>
</tr>
<tr>
<td>Col P</td>
<td>Top line is PE from Part 3-9 of the SSG, bottom line is Col Q/ Col E</td>
</tr>
<tr>
<td>Col Q</td>
<td>Stock price</td>
</tr>
</tbody>
</table>
| Col R  | Top line is “Cur RV” = \{\text{Col P (top value)}/ \text{Col T}\} x 100  
Bottom line is “Lead RV “= \{\text{Col P(bottom value)}/ \text{Col T}\} x 100 |
| Col S, T, U | PE Ratios from the latest year row of Part 1 of the PMG (Cols 2, 3, 4) |
| Col V  | This is the projected EPS growth from the SSG Graph |
| Col W  | \{\text{Col P(bottom value)}/ \text{Col V}\} x 100, shown as 2\text{nd} line of column V |
| Col Y  | Up/down ratio using the high price of Col AB |
| Col Z  | Total Return using the high price in Col AB, shown as 2\text{nd} line of column Y |
| Col AA | Selected low price from Part 4 of the SSG |
| *Col AB| Selected high price** calculated from the estimated EPS and lead period (both from column E) and the projection of earnings from the SSG Graph. Shown as 2\text{nd} line of column AA  
** high price = \text{[average high PE]} x \text{estimated EPS} x (1 + \text{[EPS projected growth rate]})^L  
where L = 5 – (lead period/4) and growth rate is a decimal fraction  
Lead period (as shown in column E) is in quarters and is an option set in the SSG Analysis, Projected Values section. |

**Review the Projecting a Full 5 Years topic in this manual.
15: Balance Sheet

The following is derived from the SSG Plus manual written by Phil Keating. Portions have been edited to conform to Stock Analyst requirements.

This portion of the program has been developed for investors interested in doing fundamental analysis beyond the basic two-page Stock Selection Guide, or in learning more about terms that are often associated with fundamental investing.

**Interpretation and Judgment**

Always review the quality and financial strength of every company in whose stock you are considering an investment. Not everyone will want to delve fully into the Balance Sheet Report. However, we believe that all investors can benefit from looking at the first two sections.

These sections address the quality and financial strength of the company under study and are ignored at the investor's peril. Safety and financial strength are uppermost in the Quality section. Capital structure information addresses the firm's current financial solvency and health.

**Quality Information**

*Value Line's Safety Ranking*

This rating has been found in some recent academic research to be one of the best overall assessments of a company's financial strength and of its likelihood to enter bankruptcy or not. The safety rank is a measure of the total risk of a stock. This is a "1 to 5" ranking that takes into consideration all of a company's financial ratios and earnings history, its price stability, plus the analyst's judgment. 5 is the lowest ranking and 3 is average.

*Value Line’s Financial Strength Rating*

This categorizes companies in ten ratings from A+, excellent; to C+, below-average relative financial position; to C, poorest financial strength. This rating allows one to make finer judgments than those based on the safety rating
alone. For example, of the approximately 1100 stocks rated "3" or average for safety, many may fall into different financial strength categories (such as B++ to C++) that further distinguish their quality.

**S&P Financial Strength Ranking**

Standard and Poor's ranks the company's growth, quality, and stability of earnings and dividends. There are eight categories, from "A+" (highest), to "B+" (average) to "C" (lowest) to "D" (in reorganization).

**R2 (R Squared)**

R squared measures the smoothness or consistency of the company's growth. It is calculated by the program from the correlation coefficient (R squared) of the company's earnings trend (for example) over time. This measure, known also as the coefficient of determination, is a measure of the degree to which the trend accounts for the observed EPS (the higher the figure, the better). Above .9 is considered excellent; .8 to .9, very good; .7 to .8, good; .6 to .7, fair; below .6 indicates a stock that is probably cyclical; and below .5 indicates a very weak trend. Figures below .2 indicate no trend at all.

R-Squared has significance both for the possible future predictability of EPS growth and for the P/E ratio that the market will pay for that growth. Generally, the market pays a higher P/E multiple for persistence (length of time) and consistency (smoothness) in earnings growth.

**Beta**

Beta is a measure of a stock's past tendency for its market price to move with the general market. A stock with a beta of 1.20 indicates that its stock price has moved 20% more than the market as a whole over a measured period of time (for example, a 12% increase in a market where stock prices in general were up 10%). If you have an extremely high beta stock (above 1.20) it can lead to great aggravation during market setbacks.

There are differing opinions about the value of using beta. For example, various reference sources will give various values for beta. Gold mining stocks typically have low betas but are high risk. If the market were falling, the beta for a stock with a rising price would be high. Is this a true measure of volatility?

**% Insider Holding**

Some management ownership is desirable. In this way management has a stake in the well being of the company and stand to benefit if the company is successful. Large insider ownership (i.e. more than 30-35%) would put too much control in the hands of a few. This is less than desirable.

**% Institutional Holding**

Low (i.e. less than 15%) Institutional Holding is preferable as it indicates a
low following by professionals. This has two advantages; 1) that the company is not yet ‘discovered’ and if it grows in the manner you expect and attracts more attention the additional interest will drive the share price higher, and 2) generally, the lower the institutional holding the lower the volatility of the share price.

Capital Structure Information

**Debt/Capital**

This is the ratio of total debt to total capital. An acceptable average for manufacturing companies is about 33%. Figures significantly above 33% indicate increased leverage and risk. Some industries, such as utilities, banks, insurance companies, and savings and loans, have different norms.

When used alone, this ratio may be a misleading measure of financial strength. Other important factors to consider are whether the company has heavy fixed costs, a large amount of short-term debt, or very little working capital liquidity. See Value Line's industry reports, S&P's Industry Surveys, or Dun and Bradstreet's Key Ratios for industry norms of debt/capital.

**Assets/Equity**

This is the best measure of leverage - the number of dollars of assets behind each dollar of shareholders’ equity in the firm. This is one of the components or drivers of return on equity or profitability. High leverage improves earnings in good economic times at the cost of increased vulnerability to an economic downturn.

The assets/equity norm for manufacturing industry in the U.S. is a leverage of about 1.5 to 2.0. Financial institutions generally are more leveraged, between 15 to 20. See Value Line's industry reports, S&P's Industry Surveys, or Dun and Bradstreet's Key Ratios for industry norms.

**Cash Flow/Total Debt**

There is significant academic research supporting the cash flow to total debt ratio as the best predictor of a company's bankruptcy from as far ahead as five years. Most companies seem to have cash flow/debt ratios of 25-35%. Ratios below this level raise questions about a company's ability to service its debt. When Philip Morris leveraged itself to acquire General Foods and then Kraft Foods, this ratio indicated that the added debt could be easily paid off from cash flow in three years and thus the stock was well worth holding.

**Cash on Hand: Latest and Yearly Change**

The yearly change figure should normally be in line with sales changes. The absolute level is as important as the yearly change. Cash is generally a good thing to have and a big drop in cash levels should be questioned. However,
too much cash in an era of low interest rates is unproductive and reduces profitability (return on equity).

**Receivables**

These are primarily sales made on credit to customers, who have not yet paid. They could also include other items such as royalties due, tax refunds, etc. The yearly change should be in line with the change in sales. Receivables that increase faster than sales raise questions about the creditworthiness of the customers or whether management is in control of the collection process.

**Inventories**

The percentage change in inventories should be similar to the percentage change in sales. The absolute level and percent of current assets are also relevant.

**Current Assets**

One would usually like to see these growing more rapidly than current liabilities and about in line with sales growth.

**Current Liabilities**

Growth of current liabilities should not exceed the growth of current assets.

**Debt Due**

This is the most significant item in current liabilities. It includes short-term notes payable, bank loans, and current maturities of long-term debt. This item should always be checked for signs of funding problems, i.e. an unusual proportion of short-term debt to current liabilities and to total capital. The percentage change year-over-year is a pretty good signpost for whether further examination is in order.

**Compounded Annual Growth**

These ten series should be examined for the persistence of trends and the direction of change in the more recent 3 and 5 year periods versus the 6-10 year overall data. Are trends accelerating, decelerating, or remaining level? The R-Squared figures are for the data available. See the comments about interpreting R-Squared in the section on "EPS Fit".

For most companies, book value, dividends, and cash flow will have the most consistent trends. One should check for the consistency of growth between and among the various series, such as cash flow and pre-tax earnings with net income and earnings per share. Do price trends follow earnings and dividend trends? Generally price changes have the lowest R-Squared, or consistency. Is long-term debt growing faster than other series, notably sales and cash flow?
Historical Valuation
These three items offer alternative valuation measures that are often very useful for particular industries. Sometimes they are even the primary valuation tools for particular industries or for cyclical companies. By using the latest average figure versus three and ten year averages and compared to the 6-10 year high and low figures, the current valuation of a company can be clearly seen in relation to its history. Periods of extreme under or overvaluation stand out in sharp relief.

Average Price to Sales/Share
These ratios are most useful for emerging companies with low levels of earnings and for cyclical companies with depressed earnings. These ratios, popularized in the book SuperStocks by Kenneth Fisher, have been used especially with technology companies.

Average Price to Cash Flow/Share
These ratios have significance for all companies. In Value Line's view, cash flow is a "purer" figure than earnings per share. It is less susceptible to accounting manipulation; therefore historical valuation based on it should be more meaningful than earnings ratios. At the least, it forms a good cross-check against earnings valuation, i.e.- P/E multiples.

For some industries, such as oil and gas, cable, and cellular telephone, price to cash flow is either the primary or the only valuation measure. Having this information will help make analysis of these industries possible within the fundamental analysis framework.

Average Price to Book Value/Share
This has great valuation significance for industries that are highly regulated, such as banks, savings and loans, and utilities. These industries are more or less regulated as to the returns they can earn on book value. Relative price to book values are often judgments as to the quality of that book value, as well as to the average profitability of the industry and company.

Current Valuation

Current PE/Average ROE
This is the price of profitability. Five-year average return on equity (ROE or profitability) is used in the denominator and current P/E in the numerator. As an absolute measure, one would like to pay less than 1.00 for a firm's average profitability over the last five years.

PE/Projected EPS Growth (PEG ratio)
This is a classic measure of growth stock valuation and a good final check
against the appropriateness of other P/E valuation measures. T. Rowe Price was the first to use this figure in the 1950s. The standard is: "Are you paying a multiple either below or near the growth rate?" If it is more than 20% above the projected growth, you may be stretching to buy the stock.

**PE/Average 5-Year P/E or "Relative Value"**

This is the best overall measure of the reasonableness of a current P/E multiple. If the relative value is at 1 or less, then there is a reasonable chance to benefit from the expansion of the P/E multiple as well as from earnings growth while holding the stock.

**Payback in Years**

This is the number of years it will take to earn back the current price of the stock if earnings grow at the projected growth rate. It is also affected by the level of the current P/E ratio. This is an excellent way to compare stocks with different earnings growth rates and differing current P/E ratios on a "level playing field." Figures of 7 to 8 years are typical; anything above 10 or below 6 is questionable.

If any of these valuation measures look too good, questions about changing profitability levels, or asset quality, or financial risk need to be checked out. Perhaps the industry or company has become cyclical rather than growth in nature.

**Implied Growth**

This is the future growth rate for earnings implied by the firm's average return on equity and earnings retention rates. Most growth occurs from firms plowing back earnings into the business. The plow back or retention ratio is the complement (1-d) of the dividend payout ratio. The percentage and trend of earnings paid out in dividends is often a good measure of management's confidence in future growth opportunities. The implication is that the less paid out, the more profitable are uses within the business.

The key element then, is average return on equity (ROE), particularly if the trend is stable or rising over the five year period. (Note these results in the Stock Selection Guide analysis.) Five year averages are used for both ROE and earnings retention in order to arrive at normal or average, implied, internal earnings growth. The assumption is that cyclical events will cancel out over five years. Implied growth can be used as a check against the reasonableness of whatever growth rate is being chosen for earnings in the Stock Selection Guide.

**Implied Annual Return**

This figure is the sum of implied internal growth and projected average dividend yield (from the SSG). The assumption is that dividends will grow as
fast as earnings grow, and that the current P/E ratio will be maintained or improved.

**References**

For those who wish to go beyond these brief descriptions and interpretations, the following readings (in increasing order of complexity) are recommended:


16: Program Updater

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While you can check for updates at any time, ICLUBcentral will announce the availability of updates on its web site, in its email newsletter and/or via email to Stock Analyst users.
Glossary

**Accounts Payable:** Money owed by a company and payable within one year. It is listed on the Balance Sheet under Current Liabilities.

**Accounts Receivable:** Money owed to a business for merchandise or services sold on an open account. It is found on the Balance Sheet under Current Assets. It is used in analyzing a company's liquidity.

**ACE – Analysts’ Consensus EPS:** An estimate of the current fiscal year EPS. This value is available in the S&P Stock Data Service files or Value Line sheets. It is one of 3 choices that can be used to calculate projected PE in Part 3 of the SSG Analysis.

**Alert P/E Ratio:** The average P/E times 1.5 is the standard setting. This is a point above which a stock would be considered overvalued. The alternate choice is the Average High P/E. This tends to be lower and gives an earlier alert.

**Amortization:** An accounting procedure that periodically expenses part of the cost of a fixed asset. The book value of the asset is reduced by the amount recognized as an expense during an accounting period. The book value declines to reflect resale value. For natural resources it is called depletion.

**Annual Report:** The formal financial statements and report on operations issued by a corporation to its shareholders after its fiscal year end.

**Asset Allocation:** The diversification of investments among different asset classes, e.g. stocks, bonds, short-term money market instruments.

**Assets:** Items of value owned by and owed to the company and used to produce products for sale and to generate profits. Total assets are listed in the Balance Sheet of the company’s annual report. The “tools” used by the company to produce products for sale and to generate profits.

**Assets to Equity:** The ratio of assets to equity in the company, a measure of leverage, which has a bearing on profitability of the firm.

**Average Dividend Yield:** Part 5 of the SSG expresses the potential for average annual dividend yield. This combines with price appreciation to show a potential total return. The formula for Average Dividend Yield is
(EPS x Average Payout) / current price

where EPS = Estimated High EPS / (1 + EPS Growth) ^2.5

Companies that pay a dividend will generally increase the dividend as EPS grow. Share price growth will usually follow the dividend increases and thus keep dividend yield at a constant percentage.

**Average High PE:** The average high price to earnings ratio (PE) for the past 5 years, in Parts 3 & 4 of the SSG. Used to calculate a forecast high price.

**Average Low PE:** The average low price to earnings ratio (PE) for the past 5 years, Parts 3 & 4 of the SSG. Used to calculate a forecast low price.

**Average Low Price:** The average of low prices for the last 5 years, in Parts 3 and 4 of the SSG. This represents a possible low price for a cyclical company (e.g. General Motors) whose stock price tends to fluctuate in cycles over approximately a 5 year period.

**Average % Payout:** The 5-year average of the percentage of the company’s profits paid out in dividends to shareholders. Found in Part 3 of SSG.

\[
\text{Dividend per share} / (\text{EPS} \times 100)
\]

A high % payout can be a danger sign. Recent payout figures higher than 50%, and higher than the average payout, may forewarn of a dividend cut. A dividend cut would likely cause the stock price to fall. Generally, the higher the payout ratio, the lower the expected growth rate for the company’s EPS in the future.

Sometimes, although the dividend payout is more than earnings, the company has strong cash flow and can cover the dividend in the short term. However, a company paying out dividends in excess of earnings on a recurring basis is a risky investment.

**Average PE (Ratio):** The average of the high and low P/Es for a particular time period.

In Stock Analyst, the average of the Average High and Average Low Price to Earnings ratios for the past 5 years. Used in Part 3 of SSG as a measure of value by comparing it to the Current PE ratio.

**Average Pre-tax Profit Margin:** Pre-tax Income divided by Sales as used in evaluating management, Part 2A of the SSG. This measures how well management converts sales dollars into profits, after deducting all the operating expenses for making and selling its products. The last two years’ figures are compared with the 5-year average to show the trend of growth.
Average Profit Margin: see Average Pre-tax Profit Margin.

Balance Sheet: A financial statement showing the nature and amount of a company’s assets, liabilities, and shareholders’ equity on a given date. It is issued annually and quarterly.

Beta: The Standard and Poor's 500 Stock Index has a beta coefficient of 1. Any stock with a higher beta shows more volatile price movement than the market, while a lower beta suggests a stock price will rise and fall more slowly than the market. There are differing opinions about the value of using beta.

Blue Chip: A common stock of a nationally-known company that has a long record of profit growth and dividend payments, as well as a reputation for quality management, products, and services.

Book Value/Share: This is the value of the common shares as accounted for on the company’s balance sheet. It is the amount of net assets (which is all assets minus all liabilities and preferred stock issues) divided by the number of common shares outstanding.

The book value may have no similarity to the actual cost per share on the stock market (called market value), or even to the sum of money that the shareholder would receive if the company dissolved. Companies that are running their businesses very successfully may sell at many times their book value, while those doing poorly may sell at a discount to their book value.

Increasing book value generally indicates that the company is accumulating assets faster than debt - a good sign. Decreasing book value may be due to research and development expenses, writing down assets, losing money from operations, or issuing more shares. Book value is used to calculate Return on Shareholders’ Equity (ROE) in Part 2B of the SSG.

Bottom-Up Approach to Investing: The search for individual stocks that have outstanding performances, even within an industry that is not performing well.

Buy Zone: Found in Part 4 of the SSG. The price range within which you may buy the stock. This range was developed by forecasting high and low prices for the company. The total high to low range was divided into price segments.

The current stock price should be well within the Buy zone to make a conservative investment choice and to provide a good opportunity for price appreciation. (This assumes that all other criteria indicating a good company are met.)

Capital Gain (Loss): The profit or loss from the sale of a capital asset such as a stock.
Capital Stock: Ownership shares of a company, consisting of all common and preferred stock.

Capital Structure (or Capitalization): Total dollar amount of all debt, preferred and common stock, contributed surplus, and retained earnings of a company.

Cash Flow: A company’s net earnings plus any deductions that are not paid out in cash, such as depreciation and deferred income taxes. A company pays dividends from this cash amount. Some analysts consider this figure more meaningful than net income because it is the actual amount of money generated.

Coefficient of Correlation: See $R^2$ (R-squared).

Common Dividends: Newer companies growing rapidly may pay a modest dividend, preferring to reinvest their profits to grow the business. More established companies often pay a dividend quarterly.

Found in Part 3 of SSG. Note Column F to see whether dividends have been growing over time and compare to the current year’s dividend. Regular payment and growth of the dividend will help support the stock price.

Also see Dividends.

Common Equity: The ownership of the company may be held by two classes of shareholders - preferred and common. The stock held by the second group is called the common equity of the company.

Shareholders’ equity - redemption value of any outstanding preferred shares

Common equity is useful in measuring the performance of a company’s management. See Part 2B of the SSG, Return on Equity (ROE).

Common Stock: A unit of ownership in a company. Common shareholders receive dividends after preferred shareholders (if the company has issued preferred shares). In the event of the company’s breakup, owners of common shares are the last in line to receive their interest in the company’s assets.

Compounding: In Part 5 of the Stock Selection Guide, compounding is used to calculate the 5-year potential return. By holding the stock over 5 years and investing the dividends back into the company, the money you originally invested will grow larger through price appreciation, dividend growth, and dividends growing upon dividends.

Consolidated Financial Statements: A presentation of the financial position of a parent company and its subsidiaries as one entity in a financial statement. See Annual Report.
**Continuing Operations:** A term used in an income statement to label income of a recurring nature, rather than that caused by sales of assets or discontinued operations.

**Current PE Ratio:** In Stock Analyst, it is calculated using the last 4 reported quarters of earnings per share.

Current Price / Current EPS.

Found in Part 3 of SSG. Comparing it to the average PE ratio shows over or under valuation of the company. Divide the current PE by the 5-year average PE. If the result is 1 or less, the stock is undervalued.

**Current Asset:** An asset that would be readily converted into cash or consumed in the production of income, usually within a year. This usually includes cash, receivables, and inventories.

**Current Liability:** A debt due, usually within a year. Usually includes accounts payable, taxes, wage accruals and short term debt.

**Current price to the Buy zone:** Shown in the PERT Summary as CurPr/BuyZn is a ratio that compares the current price to the buy/hold value, i.e. a value of 1.2 would indicate 20% above the buy/hold value, a value of 0.8 would indicate 20% below the buy/hold value. This provides a quick indication of relative merit for buy/hold decisions at club meetings.

**Current PE Ratio:** In Stock Analyst, it is calculated using the last 4 reported quarters of earnings per share.

Current Price / Current EPS.

**Current Ratio:** The sum of current assets divided by current liabilities. This shows the company’s ability to pay its current obligations from current assets. A ratio of 2 to 1 or better is sought for good quality companies.

**Current Return:** The annual rate of yield on an investment.

For stock, calculated by: yearly dividend / market price

For bonds, calculated by: interest rate / current price

**Current Yield:** Measures the percentage annual return from dividend payments.

Current Dividend / Current Price

Found in Part 3 of SSG. Note Column H refers to the High Yield, using the low stock price for the calculation.

**Cyclical Stock:** A stock in an industry particularly sensitive to swings in economic conditions. Examples are the housing and automotive industries.
**Database:** A special computer file that holds information. Within Stock Analyst, the database holds all the information for companies you have studied and saved, as well as comparisons saved. The database can be seen in Windows Explorer in the Stock Analyst directory. It is labeled as sa3.mdb.

**Datafile:** This term identifies a specially formatted file containing data for a company. You can use datafiles to exchange studies with others that have analysis software. The two file formats are .SSG and .SDF.

**Debt Due:** The sum of bank and other notes payable within 12 months or less and the portion of long term debt payable within a year.

**Debt to Capital Ratio:** The ratio of total debt to total capital (short & long term debt / capital).

\[
\text{Total debt (i.e. short + long term debt)} / \text{total capital (long-term debt + shareholders' equity)}
\]

The percentage Debt to Total Capital is found in the heading of the SSG Graph. A suggested acceptable percentage is up to 33%. Debt must be funded in good times and bad, so a company going through a bad slump has a better chance of recovering if its debt load is not too high.

Keep in mind that debt serves the useful function of helping the company grow. It is up to management to use it wisely and grow the sales and earnings.

Check the Glossary for further definitions for total debt and total capital.

**Debt to Equity Ratio:** Debt/Equity shows the company’s reliance on borrowed money to maintain and grow the business. It varies among industries.

\[
\text{Long term debt / book value x number of shares outstanding}
\]

Also calculated as: long-term debt divided by common shareholders' equity

If a company has predictable sales and can control the pricing of its products in the marketplace, then the risk of carrying debt is lessened. This is why regulated utility companies may carry much higher debt loads (up to 70% of equity) than companies in highly competitive businesses.

Generally the amount of debt and the fluctuation of the debt ratio from year to year are indicators of how well the management is running the business.

**Depletion:** An equivalent of depreciation for oil and gas reserves; an allowance that reduces taxable income.

**Depreciation:** The accounting procedure that makes systematic charges
against earnings to write off the cost of a fixed asset over its useful life.

**Diluted Common Shares:** The number of shares if all options, warrants, rights, or convertible securities are converted to common shares.

**Diluted Earnings per Share:** Since 1997 U.S. companies have been required to report diluted EPS as well as basic. Diluted EPS account for potential additional shares being distributed from options, warrants, or rights that may be converted or exercised. If there is a choice, choose diluted EPS.

**Diversification:** In order to reduce risk, it is wise to own the best company in at least 10 industries (depending upon the size of your portfolio). Choose industries that are likely to have better growth than the economy as a whole.

Another way to diversify is to buy companies of various sizes in different industries. Size can be measured by the dollar figure for sales, (up to $400M = small company; above $4Billion = large company; middle-sized companies are in between.

**Dividend:** Dividends are paid to two kinds of shareholders. Preferred dividends are paid at a specified rate to shareholders who have purchased Preferred shares. Should the company be in financial difficulty, the preferred shareholders would receive their due before the common shareholders.

Common shareholders may or may not receive a dividend. It depends upon the wishes of the Board of Directors. If a company has a history of paying dividends, it will likely continue to do so. If the dividend is cut, the stock price is likely to fall.

Dividends may be paid in the form of cash or stock. Generally a growth company pays out no more than 50% of its earnings in dividends to shareholders. When a company has been growing rapidly over several years, it is likely to pay a modest dividend so that it can reinvest earnings in the business. In this way it will build value over the long term. Part 3 of the SSG reports the dividend paid, as well as the high dividend yield and the payout ratio.

Also see Common Dividends.

**Dividend Payout Ratio:** A measurement of the percentage amount of net income paid out in dividends rather than retained by the business to help it grow. The historical % payout is found in Part 3 of the SSG. The formula is:

\[
\frac{\text{Dividend}}{\text{EPS}} \times 100
\]

Recent payout figures higher than 50% (and higher than the average payout) may forewarn of a dividend cut. This cut may result in the stock
price falling. Sometimes, although the dividend payout is more than earnings, the company has strong cash flow and can cover the dividend. However, a company paying out dividends in excess of earnings on a recurring basis is a risky investment.

**Dividend Reinvestment Plan – DRIP:** An investor can set up this kind of account to reinvest automatically shareholder dividends by buying more shares of the company’s stock. This allows dollar cost averaging to occur. This is also good for companies, giving them a steady source of new funds for growing the company.

**Dividend Yield:** The dividends per share paid to shareholders, expressed as a percentage of share price (Part 3 of SSG). Column H reports the % high dividend yield (annual dividend / low price * 100). The top line reports the current dividend yield (current dividend / current price).

Total return on your stock investment is usually measured by adding the dividend yield percentage to the percentage return from price growth of the stock.

**Dollar Cost Averaging:** Investing equal amounts of money in a specific security at regular intervals over a period of time. This averages the cost paid per unit.

**DRIP:** See Dividend Reinvestment Plan

**Earned on Equity:** See Return on Equity (ROE).

**Earnings per Share (or EPS):** The net income or profits (after taxes) divided by the number of shares of common stock outstanding. The history of EPS is found on the SSG Graph and also in Part 3.

There are several kinds of EPS reported. Two of the most common are basic or diluted. Basic shares are fewer in number than diluted. For Basic EPS, net income is divided by the number of common shares outstanding. This produces a larger EPS number than when using a diluted number of shares.

It is wise to use either basic or diluted EPS consistently in your stock analyses.

Another kind of EPS reported may be non-recurring EPS. This happens on occasions when a company has had an unusual, non-repeating occurrence that affected its earnings. Generally you would exclude this non-recurring event. However, you would want to understand any possible long-term consequences of the occurrence.

Beware companies whose earnings are erratic over time, negative, or declining in value.

**Equity:** see Shareholders’ Equity.
Estimated Low Price: The estimated lowest price that the stock may reach over the next 5 years. Found in Part 3 of the SSG. The formula is:

\[
\text{Average Low PE x Estimated Low}
\]

This very important number sets the bottom of the Buy Zone. If you have an extreme upside/downside ratio (10 or higher), then likely your low price has been set too close to the current price.

Exchange: The market where stocks are bought and sold. For example: New York Stock Exchange (NYSE), American Stock Exchange (AMEX), National Association of Securities Dealers Automated Quotations Stock Market (NASDAQ), and Over the Counter (OTC).

52 Week Hi/Low Prices: The highest and lowest prices for the stock in the last 52 weeks.

Fiscal Year: A corporation’s accounting year. A corporation's fiscal year may differ from the calendar year. Fiscal year is defined in various ways, according to the source of the data.

- Value Line: If the fiscal year ends prior to May 15, 1999, the label will be FY 1998. May 15, 1999 or later will be FY 1999.
- Standard & Poor’s Reports: Regardless of date, the fiscal is the calendar year in which fiscal year ends.
- S&P Stock Data Service files: If the fiscal ends prior to June 1, 1999, the label will be FY 1998. The fiscal year ending June 1, 1999 or later will be labeled FY 1999.

Fixed Asset: A tangible, long term asset such as land or building, held for use rather than sale.

Forecast High Price: The estimated highest price that the stock may reach over the next 5 years, assuming that the company reaches the targeted EPS and sells for its High PE ratio. Found in Part 3 of the SSG.

\[
\text{Average High PE x Estimated High EPS.}
\]

This number sets the top of the Sell Zone.

Forecast Low Price: The estimated lowest price that the stock may reach over the next 5 years, assuming that the company operates normally. Found in Part 3 of the SSG.

\[
\text{Average Low PE x Estimated Low EPS.}
\]

This number sets the bottom of the Buy Zone.

Form 10-K: The annual report required by the Securities and Exchange Commission (SEC) in the U.S. for every company with 500 or more shareholders or $1 million or more in gross assets. This form becomes public information when filed with the SEC. It is available on the Inter-
Form 10-Q: The quarterly report of a company with listed securities, required to be filed with the SEC. It is less comprehensive than the 10-K annual report and does not require that figures be audited. It may cover the specific quarter or it may be cumulative. It should include comparative figures for the same period of the previous year. It is available on the Internet or from the company.

Fundamental Analysis: A method of security analysis based on fundamental facts found in a company’s balance sheet and income statement e.g. sales, earnings, dividends. These past records are examined to attempt to predict the company’s future growth of sales and earnings as well as stock price growth, for example. This is the methodology used in Stock Analyst.

Growth Objectives: Look for a company growing sales and earnings fast enough to grow price 100% over 5 years. This equates to 15% annual price appreciation when compounded. A company whose sales and earnings are growing at 8%-10% can achieve price appreciation of 15% if purchased at a lower than average price to earnings ratio (PE).

Growth Stock: A company with excellent prospects for above-average future increases (or growth) for sales, earnings, and price. Look for a company that is a leader in its industry.

High PE: The highest Price-Earnings ratio at which the stock sold during the year. See Part 3 of the SSG for the five-year history for PE ratios.

High Yield: The highest dividend yield for a particular year (in SSG Part 3).

\[
\text{High Yield = \frac{\text{yearly dividend}}{\text{year's low price}} \times 100}
\]

It is useful to measure the current dividend yield against the historical high yield. If the current yield is lower, then there may be room for an increase in dividend to bring the yield closer to the former high.

Hold Zone: Found in Part 4 of the SSG. This range was developed by forecasting high and low prices for the company and dividing the total into 3 price segments.

When the current price reaches the hold range, you should continue holding the stock, neither selling your position nor buying more shares. Continue to track the sales and earnings results quarterly to see how the company is meeting your expectations for growth.

Implied Growth: The future growth rate for earnings, implied by the company’s average return on equity and earnings retention rates.
**Implied Return:** The sum of implied internal growth + projected average dividend yield.

**Income Before Profit:** See Pre-tax Income.

**Income Before Taxes:** See Pre-tax Income.

**Income Statement:** The portion of a financial report showing income and expenses and comparing them to the same period last year. The income statement is also called the earnings report.

**Industry:** Category groupings for companies according to their business. These may vary somewhat according to the authority doing the grouping (e.g. Value Line, Standard & Poor’s, etc.). When looking for good investments, it is wise to compare several companies in the same industry and to pick the best of the group for purchase.

**Industry Sector:** A grouping of industries into a broader economic definition. (e.g. transportation).

**Insider Ownership:** Employees, executives and directors who have their own money invested in the company are ‘insiders’. By holding shares, they show that they have confidence in the security and future of their investment. They have extra incentive to make the company profitable.

The percentage of insider ownership desirable is a judgment call. At 51% or more, the insiders definitely have the controlling interest. This term is found in the header of the SSG Graph.

**Institutional Ownership:** The percentage of shares held by mutual funds, trust funds, and other professional managers who hold large blocks of shares for their clients. Fund managers tend to make changes in their portfolio of stocks more frequently and for different reasons than individual long-term investors do. These large sales can create larger than normal price changes. This is why a substantial percentage of institutional ownership may be considered a disadvantage. This term is found in the header of the SSG graph.

**Intangibles:** Assets such as goodwill, patents, unamortized debt discounts and deferred charges.

**Interest Coverage:** The number of times all interest charges are earned by pre-tax, pre-interest earnings, typically at least 3 times. Interest expense + pre-tax income / interest expense.

**Inventories:** Raw materials + work in process + finished goods.

**Inventory Turnover:** The ‘convention’ is to divide sales by the inventory. However, it is more realistic to divide the cost of goods sold by inventory. This ratio shows how many times the units of inventory of a company are sold and replaced during an accounting period.
**Investor:** A person who seeks to minimize risk in the purchase of securities. Companies with good track records are preferred and purchase at fair value is important. Companies are held for the long-term (at least 3 to 5 years) rather than trying to time the market.

**Investor Sentiment:** Investors' expectations of how a market will perform. It is described as bullish (with expectation of higher prices) or bearish (lower prices).

**Judgment:** The human element that is necessary for successful investing. Computers can crunch numbers, follow formulas, and provide some artificial intelligence; but judgment is crucial for making the careful decisions. The investor must be informed about the company’s past, its future plans, and be prepared to make some educated estimates about future trends. In all cases, judgment must be applied when doing any analysis in Stock Analyst.

**Lagging PE Ratio:** See Trailing PE Ratio.

**Leading PE Ratio:** See Projected PE Ratio.

**Least Squares:** A method to calculate the growth of the lines on the SSG graph. This growth calculation uses the logarithm of the values. As the log of numbers less than 1.0 is mathematically undefined, the computer tests for this condition and alters the data values so that a calculation can be made. Least squares produces a more conservative result than the mid-point method.

**Leverage:** The extent to which a company uses debt to finance expansion and growth. It is measured by the Debt to Equity and Debt to Capital Ratios. When comparing companies’ leverage ratios, do so within the same industry, to be fair.

**Liabilities:** Debts of a corporation, usually divided into current (those due within one year) and long-term (those payable after one year).

**Liquidity:** The ability of a company to convert assets into cash or equivalents without significant loss. Good liquidity enables a company to earn discounts, maintain a good credit rating, meet obligations promptly, and take advantage of market opportunities.

**Long-term Debt:** Often companies need more funds to support their activities than their profits can provide. Therefore they will borrow money and make interest payments regularly. Long-term debt describes the debt amount due after one year or more.

**Low PE:** The lowest PE ratio at which the stock sold during the year. See Part 3 of the SSG for the five-year history of PE ratios.

**Low Price / EPS**

**Low Price Estimate:** Part 4B of the SSG. The investor must estimate the
lowest price that will occur during the next five years in order to set the zoning. There are several choices here, depending upon the type of company and its market history.

**Market Capitalization:** The dollar valuation of the total number of shares times the current price. This value is sometimes used by investors to classify stocks by size. It is not as reliable as classifying by sales dollar value because the price of a stock can be very inflated by the market and not truly representative of its size.

**Mid-Point:** This is a method of calculating sales and EPS growth on the SSG Graph. It bases growth on averaged values. For 10 years of data, averages are calculated for the first and last 5 years. Each average determines a point between which an imaginary line is drawn to calculate the growth of the slope. For an odd number of years, the data is split so that the middle year is accounted in both averaged sums.

**Net Asset Value:** Total assets of a corporation less its liabilities.

**Net Earnings:** See Net Profit.

**Net Income:** See Net Profit.

**Net Income Before Taxes:** See Pre-tax Income.

**Net Interest Margin:** A ratio used for evaluating management for bank stocks. The difference between interest paid and interest collected.

\[
\text{Net Interest Income / Total Earning Assets}
\]

**Net Profit:** Also called Net Earnings or Net Income. Profits remaining after all expenses and taxes are applied and out of which dividends are payable.

\[
\text{EPS x number of shares}
\]

**Net Profit Margin:** A Value Line measurement defined as net income before non-recurring gains and losses as a percentage of sales or revenues.

\[
\text{Net Profit after Taxes / Sales}
\]

**Net Worth:** see Shareholders’ Equity.

**Online Premium Services (OPS):** See Standard & Poor’s Stock Data Service.

**Operating Income:** The income from normal company operations, after deducting all expenses except taxes.

**Operating Margin:** A Value Line measurement defined as operating earnings (before deduction of depreciation, depletion, amortization, interest and income tax) as a percentage of sales or revenues.

**OPS:** See Standard & Poor’s Stock Data Service.
Outlier: A data figure that appears unusual from the normal trend. It is generally caused by extraordinary or non-recurring financial events.

Payback Period: The length of time it takes for the company’s accumulated earnings to equal the price of the stock, assuming that they grow at the forecasted rate.

Payout: The percentage of the company’s profits (EPS) paid out in cash dividends to shareholders. See Part 3 of the SSG. The formula is:

\[
\text{Dividends per Share / EPS } \times 100
\]

The remaining EPS not paid in dividends are reinvested in the company.

Young, fast-growing companies often have a low payout percentage because they can better use the funds to grow the company. An increasing payout ratio may show that the company is maturing and growing more slowly, so has less need for cash for expansion.

If the payout ratio is unusually and overly large (60%+) the company may be paying out too much dividend. There may be a risk that the dividend will be cut, with a resulting fall in the stock price. Remember that some kinds of companies, such as utilities, normally have a high payout ratio.

Percent Payout: The percentage of the company’s profits that are paid out in dividends to shareholders.

\[
\frac{\text{Dividends per Share}}{\text{EPS}} \times 100
\]

Percent Retained to Common Equity: A Value Line measurement, known as % Retained to Common Equity, defined as net profit less common and preferred dividends divided by common equity, expressed as a percentage. Also called Plowback Ratio.


Plowback Ratio: See Percent Retained to Common Equity.

PMG: Portfolio Management Guide.

Potential Annual Appreciation: Found in Part 5A of the SSG. Refers to the potential percentage growth of the price of the stock, from the current price to the forecast high price 5 years ahead, compounded annually. This number is based on the analysis decisions that you made in your SSG. Combined with a dividend yield, it makes up the possible Total Return percentage.

Potential Dilution: Reported in the heading of the SSG graph as a percentage. Any outstanding options, warrants, or convertible debentures that are converted to common shares will dilute the value of those shares.

Potential Dividend Yield – Average: Found in Part 5B of the SSG.
Suggests the potential percentage dividend payments, compounded yearly over the next 5 years. Combined with price appreciation, yield makes up the possible total return percentage. Also see Yield.

**Potential Total Return:** Found in Part 5C of the SSG. Suggests the potential compounded return on your investment over 5 years, based on the analysis decisions that you made in your SSG. It supposes that you bought the stock at the current price, earned the average dividend yield, and sold at the forecast high price to achieve the potential annual price appreciation.

**Preferred Dividends:** These dividends are paid at a specified rate to shareholders who have purchased preferred shares. Should the company be in financial difficulty, the preferred shareholders would receive their due before the common shareholders. Preferred dividends are used as part of the SSG Graph Preferred Procedure method for predicting EPS 5 years into the future.

**Preferred Procedure:** Estimates earnings per share by applying profit and tax margins to the projected sales rate 5 years in the future. This centers attention on profitability rather than sales expansion.

A formula that may be used in the SSG Graph to estimate earnings per share five years ahead. It starts with the sales growth projection developed in the SSG Graph. (This is used because sales growth is historically more consistent and stable than earnings growth.) From sales are subtracted expenses, taxes and preferred dividends. The result is then divided by the shares outstanding to show the 5-year forecast for EPS.

It is worthwhile to compare this sales-based EPS projection with other methods. This should help to confirm the reasonableness of your future 5-year EPS projection.

**Preferred Shares:** Used in the calculation for Preferred Procedure. Preferred shares rank higher in importance than common shares. Dividends are an obligation and have to be paid before common share owners can benefit from company profits.

**Pre-tax Income:** Also may be called Net Income Before Taxes, Income Before Profit, or Income Before Taxes. This is the profit made by the company before paying taxes.

\[
\text{Net Income} / (1 - \text{tax rate as a decimal})
\]

**Pre-tax Profit on Sales:** Also called This is expressed as a percentage in Part 2A of the SSG. Dividing the pre-tax income by net sales determines the pre-tax profit on sales. This is also called the Profit Margin or Profitability.

This measures the effectiveness of management in controlling expenses
and is a useful measure of overall operational efficiency when compared with prior periods or with other companies in the same business. This “return on sales” varies widely between industries (e.g. 2% return for supermarkets is reasonable, but manufacturing industries should return 4-5%). A declining profit margin can be caused by declining sales, declining efficiency, aging plant and equipment, or inappropriate management decisions.

If quarterly pre-tax income is not available, you can estimate the tax rate from the yearly tax rate.

\[
\frac{\text{Net Income}}{(1 - \text{Tax Rate})} / \text{Revenues}
\]

**Price-Earnings Ratio (PE):** This may also be called the stock’s multiple. It is a measure of value found in Part 3 of the SSG. The formula is Price divided by EPS.

PE represents the amount investors are willing to pay for each $1 of earnings. This PE value will fluctuate. The higher the PE ratio, the riskier and more volatile the stock. Investors are willing to pay a higher PE for faster growth and potential return.

There are various EPS formulas for PE. A trailing PE uses reported earnings from the last fiscal year. A current PE uses earnings from the current quarter back 4 quarters. A leading PE uses earnings forecasted up to a year ahead.

**Price Appreciation:** Growth from the current price to the forecast high price gives us the price appreciation calculation. Price appreciation is shown in Part 4E of the SSG using a simple interest calculation.

Part 5C of the SSG shows the simple and compounded yearly rate of return. 15% compounded approximately equals 100% in simple interest.

**Price/Buy Zone:** A ratio that indicates whether the current price meets the target buy zone set in your analysis. If above 1, the stock is more costly than your target price.

**Price Dividend Will Support:** A company with a large dividend yield will have substantial price support. A large dividend yield is anything larger than ½ the bank interest rate. This support price is calculated in Part 4Bd of the SSG.

**Price Target:** Part 4E of SSG. This shows the potential percentage appreciation over the next 5 years if the current stock price increases to the forecast high price (Simple interest is calculated).

**Profit Margin:** See Pre-tax Profit on Sales.

**Profitability:** See Pre-tax Profit on Sales.

**Projection Line:** In the SSG Graph, this line is drawn by the computer.
or the user to estimate future growth for EPS or sales.

**Projected EPS:** Found in the SSG Graph. Your projection for EPS from the last fiscal year line, five years into the future.

**Projected PE Ratio:** Also called Leading PE Ratio. This ratio uses 4 consecutive quarters of EPS, at least one quarter of which is forecasted. Projected PE is an option used in Part 3 of the SSG.

\[
\text{Current price} / \text{projected EPS}
\]

The market drives stock prices up or down in anticipation of company results. Using forecasted EPS with the current price gives a PE that is more balanced with the current market value of the stock.

**Quarterly Percentage Changes:** Found in the box at the top left of the SSG Graph. This reports the latest quarterly results for sales and earnings and compares them to the same quarter last year. The percentage growth quarter over quarter is given.

**Quarterly Sales:** Sales for the most recent quarter. Found in the Quarterly Data window.

**Quick Ratio:** A liquidity measure, also called Acid-Test Ratio. Cash plus cash equivalents plus trade receivables divided by total current liabilities. A ratio of 1 to 1 or better is usually satisfactory.

**R² (R-squared):** The result from calculating growth, using the Least Squares method, which indicates variability of data to an ideal growth curve. A value of 1 would indicate a perfect fit and therefore no variability to the ideal. Values vary between 0 and 1. Also know as Coefficient of Correlation

**Recent Severe Market Low:** The lowest stock price during the last 3 years. It is one of the choices for estimating the Future Low Price in Part 3 of the SSG. It is usually considered for cyclical companies or companies doing a turnaround from bad times.

**Receivables:** Sales that have been booked by the company but not collected.

**Relative Value:** The ratio of the current PE to the 5-year average PE. It measures whether the current value of the stock is less or more than the average value that investors were willing to pay during the last 5 years.

\[
\text{Current PE} / \text{average PE}
\]

The current PE is affected by current price and earnings. The average PE depends upon any changes made to average high and low PE Ratios during analysis in Part 3. Attractively valued stocks have a relative value of 1 or less. A range of about 0.75 to 1.10 may be acceptable. Lower relative values may indicate a risky situation, rather than a ‘great buy’.
Retained Earnings: The earnings retained by a company after payment of all expenses and dividends. Retained earnings grow as they accumulate year after year. They are shown on the company’s books as a cumulative amount in the Balance Sheet section under Shareholder Equity.

Return on Equity (ROE): Also called Earned on Equity. ROE tells how effectively company management is using the shareholders’ money to make a profit. This is useful for comparisons among companies. See Part 2B of the SSG for ROE results.

A simple formula is Net Income divided by Shareholders’ Equity. Generally, the higher the ROE, the more efficient the management and the better the return to shareholders.

It is expected that there will be some variation in the ROE numbers over time. For example, issuing more shares increases shareholders’ equity. This causes the return on equity to decline until management can invest the new funds and generate new earnings.

Another decline in the ROE trend can occur when a company relies heavily on debt. If interest expenses rise significantly, net income will likely be reduced. Therefore ROE will be less. Return on equity is a balancing act between careful use of debt and good use of assets.

Revenues (or Sales): The amount collected for all goods or services sold during the period. Sales are crucial to the success of the company because sales provide the income for operations. (although the company may also borrow money.) There must be enough sales to support company activities and debt repayment.

Historical sales growth is shown on the SSG Graph. The percentage growth rate is measured by the trend line.

Rule of 72: A formula for approximating the time it will take for a given amount of money to double at a given compound interest rate. The formula is divide 72 by the interest rate. To double your money at 6% interest takes 12 years (72 divided by 6% interest = 12).

Rule of 5: Experience in using Stock Analyst’s investment methods suggests that of 5 stocks purchased, 1 will do better than you expect, 3 will do as you expect, and 1 will do worse than you expect.

S&P Financial: This Standard and Poor’s ranking rates the company’s growth, quality, and stability of earnings and dividends using 8 levels, from A+ (highest) to B+ (average) to C (lowest) to D (in reorganization).

Sales: see Revenues.

Scale Factor: On the SSG Graph, the values for the points on the growth lines (as shown by the vertical numbers on the left of the graph) are multiplied by this factor to give the actual value.
The scale shows in the Recent Quarterly Figures box on the left top corner of the Graph. Alter the scale factor by right-clicking on the data line on the Graph. Select Move Up, Move Down, or Reset Scale.

**SDF Files:** Stock Data Format files contain company information generated from the Stock Analyst program. This is the recommended format for exchanging company studies with other Stock Analyst users or for archiving individual company information.

**SSG Files:** SSG is the standard format used for S&P Stock Data Service files. This format contains some but not all the data used in Stock Analyst. To exchange information with users of other software, use the SSG file format. For other Stock Analyst users, choose the SDF file format.

**Security:** An investment vehicle such as a stock, bond, option, or warrant.

**Sell Zone:** Found in Part 4 of the SSG. This range is developed through forecasting high and low prices for the company and dividing the total range into 3 price segments.

When the current price moves into the upper zone, it is time to re-examine the fundamentals of the company and consider replacing it with another stock of equal quality but better value and potential.

If the company’s growth rates for sales and earnings are continuing, you may decide to hold. If the growth rates are dropping and prospects are declining, you may decide to sell. If the fundamental growth is good, the price continues to climb, but the PE ratio is very high, you may decide to sell a portion of your holdings. Continue to monitor the stock closely each quarter.

**Shareholders’ Equity:** Also known as Equity and Net Worth. The term identifies shareholders’ ownership interest in a company. Equity is useful in measuring the performance of a company’s management (called Return on Equity – ROE). See Part 2 of the SSG.

The equity ownership of the company usually held by two classes of shareholders – preferred and common. It may include preferred and common shares, paid-in capital (capital surplus), retained earnings (earned surplus), and Treasury stock.

The accounting definition is all assets on a balance sheet (including intangibles) less all liabilities (current, non-current liabilities, and long-term debt).

**Shares Authorized:** The number of shares of stock provided for in the Articles of Incorporation of a company. This figure is usually found in the capital accounts section of the Balance Sheet and is usually well in excess of the shares Issued and Outstanding. It can be increased by a vote
of the shareholders.

**Share Split:** Directors of a company may order a share split to make the shares more affordable for investors. If a shareholder holds 100 shares at the current share price of $40 and the stock splits 2 for 1 (2 new for 1 old share), the new share price would be $20 and the shareholder would then hold 200 shares.

In both cases, the value of the shares would remain at $4000. Dividends would be treated the same way, with the total value remaining the same. Share splits only change items relating to numbers of shares. Sales and net income do not change, for example.

**Short Term Debt:** All debt due in the next 12 months. This figure is found on the Balance Sheet under current liabilities.

**Simple Average Calculation:** Found in Part 3 of the SSG.

**Standard & Poor’s Stock Data Service:** Formerly Online Premium Services (OPS). A subscription data service offering direct online access to S&P Compustat financial data on over 7,000 stocks with data updated daily. Call BetterInvesting at www.betterinvesting.org.

**Stock Comparison Guide (SCG):** A form used to compare the features of 2 to 5 stocks in order to find the best for purchase. Its use is preceded by an SSG analysis for each stock to make sure each is worthwhile for comparison. Note that comparisons are most meaningful when made among companies with similar characteristics or in the same industry.

Club members could also use the SCG to combine several members’ analyses for the same company. This would provide a focus point and easy reference for discussion about a single stock.

**Stock Dividend:** A payment of additional stock to shareholders, rather than a cash dividend. Such payment increases the number of shares held but does not alter a shareholder’s proportional investment in the company.

**Stock Selection Guide (SSG):** A form that helps you to determine whether a stock is a worthy investment. It measures growth and evaluates value.

**Technical Analysis:** Market or security analysis involving the study of price movement and trading volume for stocks by plotting graphs or charts. Using this method, technicians seek to make investment decisions by understanding and predicting investor sentiment and psychology.

**Top-Down Approach to Investing:** A method of investing in which an investor first looks at trends in the general economy, and next selects industries and then companies that should benefit from these trends.

**Total Assets:** This denotes the financial framework (capital structure) of
a company, including long term debt and all forms of equity. If you are working from a company's Balance Sheet, add current assets, property, plant equipment, and "other" assets. The accounting formula is:

\[
\text{Total Assets} = \text{Total Liabilities} + \text{Shareholders' Equity}
\]

This formula demonstrates the "balance" in the Balance Sheet.

**Total Capital:** The capitalization box on the SSG Graph gives information about how the company is financed or “capitalized”. This can be a combination of stock (preferred and common shares) and debt.

\[
\text{Long term debt + shareholders’ equity}
\]

Debt to Capital is the percentage used in the header of the SSG Graph. Refer to this in the Glossary for further information.

**Total Debt:** Total Debt is found in the SSG Graph header. Companies have debt due within one year, as well as long-term debt payable over a longer period of time. The total debt figure includes both kinds of debt.

\[
\text{Long term debt + short term debt. (i.e. debt due within the next 12 months)}
\]

Debt can consist of bonds, debentures, or shorter term bank debt. Bondholders differ from stockholders in that they are lenders. They must receive their interest payments and when their bond comes due, they will get their principal back as well.

**Total Return:** The compounded annual return on an investment, including price appreciation and dividends or interest. See Potential Total Return for specifics regarding Part 5C of the SSG.

**Trailing PE Ratio:** Also called Lagging PE Ratio. The price to earnings ratio based on actual EPS over the last 4 quarters. In Stock Analyst, current price divided by earnings per share, over the last full fiscal year. You will find it in Part 3 of SSG and it is called Current PE.

**Turnover:** The number of times a given asset (e.g. inventory) is replaced during an accounting period, usually a year.

Comparing current PE to the average PE ratio shows over or undervaluation for the company. Divide the current PE by the 5-year average PE. If the result (called Relative Value) is 1 or less, this is one indicator that the stock is undervalued.

**Treasury Stock:** Shares that have been repurchased from shareholders. The stock is held in the ‘treasury’ and is listed on the company’s Balance Sheet. It is available for retirement or resale. It is issued but not outstanding.

**Trend Line:** In the SSG Graph, the computer or the user draws a straight line through the historical plot of data for the company's EPS or reve-
Undervalued: A stock selling below its liquidation value or the market value that analysts believe it deserves. Fundamental analysts try to spot such companies to buy them before they become fully valued. A stock may be undervalued because the industry is out of favor or because the company is not well known or has an erratic history of earnings, for example.

Units: Units are used to deal with large numbers. The most common unit designation is millions. Use sales as the basis to determine unit size: thousands, millions, or billions. For companies whose sales are over 100 billion, you may choose to use billions as the unit designation.

Upside/Downside Ratio: The ratio of the potential gain to the risk of loss. This is based on the potential gain from the current price rising to the forecasted high price compared to the potential loss from the current price dropping to the estimated low price. An upside/downside minimum ratio of 3 to 1 is recommended. See Part 4 of the SSG.

Value Line Financial: A ranking which rates companies in ten categories according to their financial strength, from A+ (excellent) to C (poorest).

Value Line Safety: A ranking which assesses a company’s financial strength and measures the total risk by ranking from 1 to 5. 1 is highest for safety, 3 is average, and 5 is lowest.

Visual Analysis: Refers to the Stock Selection Guide Graph (Section 1) that represents a company’s history of sales, earnings per share, and price ranges. By viewing this graphical picture it is relatively easy to see by the slope and consistency of the lines whether the company has performed well enough to warrant further investigation.

Weighted Average Calculation: This calculation imparts a preference for the most recent data.

Working Capital: Current assets less current liabilities.

Yield: Percentage return on an investment. A stock yield is calculated by expressing the annual dividend as a percentage of the current market price of the stock. (dividend divided by price) See Part 3 of the SSG for current and high dividend yields and Part 5 for potential average annual dividend yield over 5 years.

Zoning: Found in Part 4 of the SSG. Zones: are used to determine whether the current price is reasonable. By forecasting high and low prices for the company and dividing the total price range into 3 price segments, buy, hold, and sell zones are developed. The current price is compared to these zones in order to evaluate the risk and reward ratio.
over the next 5 years.

The zone may be segmented according to two methods. In the past, the standard formula was 33/33/33. This divides the zones into three equal segments. The formula is forecast high price minus forecast low price divided by 3 = zone range.

Another formula is 25/50/25. This formula is forecast high price minus forecast low price divided by 4 = zone range.

Buy Below Price = low price + zone range.

Sell Above Price = high price - zone range.

The 25/50/25 range selection provides for a smaller buy zone, a larger hold zone, and an upside/downside ratio of 3 to 1 or better if the current price is in the Buy zone. However, it does create a higher Sell price, which may be a less cautious point at which you should do another analysis of the company.
Revision History

August 2005 – Version 3.2.0

Bugs Fixed

- Subscript out of range error no longer occurs when tiling windows & opening SSG Analysis
- Enhanced auto-updater tweaks
- Import and export of SSGs no longer wipes judgment for future Sales/EPS ratio
- Program now indicate 200 company limit on price updates
- Right-clicking on PERT Report & refreshing data now updates accordingly
- PMG no longer multiplies buys & sells multiply when manipulation of SSG data
- PERT: column V/W column no longer incorrectly uses current instead of lead PE
- Numeric version scheme is now sane
- Issue share splits no longer saves improperly
- Quarterly data revenue field extended to fit for 100s of millions
- Full name no longer missing from registration
- PMG Graph no longer incorrectly shifts FY Year
- Runtime error 440 no longer occurs when inputting quarterly data manually after adding new year and data
- Purchase price in portfolio diversification is no longer incorrect
- SSG judgment compatibility between Stock Analyst & Toolkit
- Book value now downloads from OPS
- Letter T is no longer displayed wrong after importing SDF files
Features Added

- New .SDF format for trading back & forth with Toolkit 5.1
- New 'Save As' process to warn user against overwriting
- New call allows Portfolio Record Keeper to load SSGs
- List panel now contains an add new item

Changes Made

- Edit company data window now contains less confusing text at the top
- New splash screen
- New ABOUT screen

June 2004 – Version 3.1.0

General Items

- New auto-updater added to the program. To check for new patches and updates select Help | Check for Updates from the top menu. Previously this took users to a website to download and install patches manually. Now the update is automatically downloaded and installed in seconds with a click of the mouse.
- Corrected issue where closing Stock Analyst using the ‘X’ button will close even if you are prompted to save data and choose to cancel. If you are prompted to save data when closing and select Cancel Stock Analyst will remain open.
- Modifications to the way Stock Analyst downloads OPS data to correct reports of Error 430 on some computers.
- New Global Preference on Display Tab to set the color of background report shading. Default is light gray back shading. This affects Balance Sheet Report, PERTA, PERTB, and PMG Report. Changes made in the preferences area will update any open windows and become the default color for companies opened after that point.
- Minor corrections and link fixes on the About | NAIC Stock Analyst window.
- Revised the Quick Start Guide (PDF file) on Page 2 in Software Specifications section where it incorrectly indicated Stock Prospector instead of Stock Analyst.
- Removed the S&P Financial Rating from the Sort Report because it is not tracked by S&P. S&P Quality Rating remains and lists proper S&P ratings from ‘A+’ down to ‘D’. Additionally there is S&P Rating column that reflects the numeric equivalent of the S&P Quality
values and allows proper sorting of the S&P Quality values in report.

- “Sorted By” label on Sort Report properly updates when sort changes made to the list.

- Importing an older Stock Analyst 2.5 type database using the Options | Restore menu left the cursor in an hourglass state after completing even though the program was ready.

- Some users reported that installing Stock Analyst sometimes caused Investor’s Toolkit to stop working. Re-installing Toolkit fixed the problem however, Stock Analyst now checks for this potential problem and prevents it from happening as it is installed.

- Resolved concern where some users reported they open a company, make changes, close it and choose not to save the changes, then re-open and the changes are listed. Re-starting the program and loading company shows that the changes did not save as intended. Corrected so this situation does not occur.

- Corrected error where program would not open if user did not have any printer set up on the computer. Program now loads fine and any attempt to print prompts you to install or set up a printer first when no printers are present.

- Behavior of Financial calculator updated so that it opens on the top right corner of the screen instead of dead center so it is minimally blocking the NSA program. Help for calculator opens directly to the left of the calculator with no overlap.

- Added links to open the Stock Analyst Manual and Quick Start Guide from the main help menu.

- Stock Analyst now allows printing of multiple copies of any/all reports.

- Sort Report - S&P Quality (Rank) was mislabeled as S&P Safety. Properly renamed column heading.

**SSG Graph**

- Revised the SSG Graph popup judgment to modify or reset EST Rev and EST EPS projection % values by combining these two items into one window. In this way a person can modify or reset one value or both without the need to open two separate popup windows.

- Corrected SSG Graph so that Mid-Point calculation method now works. Previously only calculated Least Squares growth.

- SSG Graph popup quarterly data will appear for all quarterly data circles on the chart. Previously only the first 3 quarters after the last FY would show popup data if you positioned the mouse over the cir-
Double clicking on the SSG Graph will immediately display the popup Options window for that report.

SSG Analysis

- Removed the Stock Wizard from the right-click pop-up menu on the SSG Analysis report. This is not a function of the Stock Analyst program.
- Corrected a default option on SSG Analysis Section 3 extras that used ACE Forecasted EPS as default instead of EPS Growth from the Graph. The initial default when installing Stock Analyst is now EPS Growth from the Graph. Existing users can change the setting manually in the program preferences | SSG Analysis tab.
- Revised the SSG Analysis popup judgment to modify or reset Avg. High or Avg. Low PE ratios by combining these two items into one window. In this way a person can modify or reset one value or both without the need to open two separate popup windows.
- Revised SSG Analysis such that a left (normal) click on the Avg. High PE, Avg. Low PE, or EST. Low Price boxes will immediately display the list of calculated selections. Right clicking will display the popup enter / reset judgment box. (See previous item)
- Removed the Stockwiz from the right-click pop-up menu on the SSG Analysis report. This is not a function of Stock Analyst program.
- Double clicking on SSG Analysis will immediately display the popup Options window for that report.

Data Entry and Data Items

- New Update Quarterly Data option on company data entry window. By selecting the Quarterly Data tab a person may click the “Update Q Data Only” button. This will update the complete list of Quarterly data and all the historical monthly prices but will not alter any yearly or current or Annual Report data.
- Added Short Term Debt latest 4quarters - Short Term Debt (4Q). This is displayed on the Balance Sheet Report in Capital Structure section.
- Doing data update properly updates 52-week high and 52-week low prices in company. It should look at the price date, compare to price date in SSG datafile and update high and low prices if the current price is updated.
- Importing old Stock Analyst Data to New Stock Analyst – Corrected issue where inside ownership comes in with the wrong decimal place (100x larger) and in some cases institutional shares was no longer
converting or listing in thousands (000) in Stock Analyst when previously was in billions or millions in old Stock Analyst.

- Quarterly Data Window - If you change the option to Tax Rate (or Pre tax Income) then go back to the Quarterly tab the data in the Tax Rate (or Pre tax Income) column is not correct. This appears to be a screen refresh problem. The data itself is always correct, just the display was incorrect. This has been fixed.

- Company data - S&P Quality rating - This is a letter rating like a+, B, etc but the field lists as a number when in fact the proper rating is already tracked in the S&P Financial rating. Removed S&P Financial Rating, leaving a dropdown option list of S&P Ratings from ‘A+’ down to ‘D’ to represent the S&P ratings.

- S&P Financial is not used by OPS or S&P Data so this has been removed from the Balance Sheet Report. S&P Quality Rating remains and lists proper S&P ratings from ‘A+’ down to ‘D’. Also removed S&P Financial item from Company Data Report as it is not used.

- Company Data popup window | Update Data button: If a company in the database is too old or if the existing data is inconsistent with the new update, a warning with no message (blank popup) appears. Corrected to display the full text of the message in these cases when updating.

- Data Entry Add /Delete Year process properly shifts the following columns of data. Cash Flow, Long Term Debt, User1, User2, User3. Also prevent the Add or Remove year to proceed giving user an alert message if the data is locked.

- Corrected issue in Data Entry on Company Info tab where invalid date can be entered into the Date of Last FY box. Message "Date of LQ is in conflict w/ Date of LFY. Click OK to go to Quarterly data tab or Cancel to stay on remain in current tab." Works now so that Cancel stays on current tab instead of incorrectly going to yearly data tab. Likewise the Date of LastFY box will not allow an invalid date to be entered at all. The date reverts to previous value if invalid data is entered as date.

- Add data entry location to edit and view Total Assets on the Company Data tab. This information is used on the Balance Sheet report Capital Structure Section – Assets/Equity ratio. Relocated Insider and Industry items to top of right column of data so that like data items remain grouped together logically.

**Comparisons**

- Corrected display of Implied growth lines on Stock Comparison Graph. Was inverted order and did not take the SSG Section 2B ROE
calculation option into account. (Previous Year Equity options)

- Stock Comparison Guide Row 25 (Potential Dilution) no longer relevant considering OPS and all data providers report all earnings on a diluted basis. Result is None showing in this row. Row 25 still will remain in the report until NAIC decides to make change to the SCG and either remove or modify this row.

- Corrected Comparison Guide graph PTI on Sales item to display correct PTI on Sales ratio data.

- In certain situations on the Stock Comparison Graph an unintended dark gray shadow would appear behind the Graph legend box. This has been corrected.

**Trend Graph**

- Corrected issue where Trend Graph lines are reset or erased after loading SSG Analysis Section 2 Graphics chart then returning to Trend Graph.

- Additional correction to ensure that data does not reset or erase when loading multiple companies and viewing multiple Trend Graphs.

- Added mouse over popup feature to Trend Graph so plotted data can be seen.

- Trend Graph - Implied Growth formula corrected. Was inverted order and did not take the SSG Section 2B ROE calculation option into account. (Previous Year Equity options)

- Scale Changes stick if they are altered then you switch to another report and then come back to Trend Graph. Previously they did not.

**PMG & PERT**

- Made adjustment to PERT-A report to correctly line up the quarterly data with the Fiscal Year (bold) indicator lines. Previously the bold lines were off by one quarter.

- PERTA, PERTB, PERT Report, Balance Sheet Report, PMG Report – Display NMF (no meaningful value) in previous year % growth calculations where previous year value is negative.

- Fixed issue where the LastQ Date is not in agreement with the Fiscal Year end date: that is the LastQ Month does not match on a quarterly basis with the Last FY month. NSA no longer (occasionally) freezes when loading the PMG Report, PMG Graph, PERTA or PERT Graphics.

- PERTA, PERTB, PERT Report, and PMG Report – Added alternating back shading to reports for easier reading. New global preference
to turn PERT and PMG Report back shading on or off added to Preferences | PMG and PERT area. Changes made in the preferences area will update any open windows and become the default on/off setting for companies opened after that point.

- Added right click ability on PERTA, PERTB, PERT Report, and PMG Report to toggle background shading on or off. PERT Report added Show/Hide Header option to match functionality of other reports.

- PERT Report Column E and Z remain blank until judgment is complete on company SSG. Previously they would show irrelevant figures such as ACE 4Q EPS or 100% Total Return.

**Balance Sheet Report and Analysis**


- Balance Sheet Report Capital Structure section - Short Term Debt references proper SSG field 156 for short term debt latest 4 quarters. No longer calculating from other values.

- Balance Sheet report would not load in some cases when invalid or missing data was present for Inventories or Inventory Turnover Ratio data. Corrected.

- Entering in total interest paid on debt in the annual report data of a company would cause a % value to show on the bottom right corner of the Capital Structure section of the Balance Sheet report. This has been corrected to indicate Interest Paid on Debt due and also show the latest years data for this item in addition to the % change.

- Minor spelling and text adjustments to the alerts in the Balance Sheet Analysis (report)

- Removed leading $ in front of Px to Sales ratio on Balance Sheet Analysis so it matches the same data as displayed on the Balance Sheet Report.

- Corrected the alert on the Compare Net Income line on the Balance Sheet Analysis. Appeared to be a problem displaying proper color alert when losses occurred.

- Balance Sheet Analysis – Corrected a condition whereby Cashflow is increasing at or better than Sales, yet the comment is Cashflow is NOT increasing at or better than Sales.
Balance Sheet Report - Corrected problem in the calculation of 10Yr Averages in the Historical Valuation section. (Previously the 10 Yr averages appeared to be dividing by 9 years instead of 10.

Portfolio Items

- Portfolio menu items work properly in all cases now. Previous issue where they did not function when portfolio loaded is resolved. Added new menu item Portfolio | Retirement Planner.
- Corrected issues on Portfolio diversification (list and chart) where previously the Capitalization, revenues and other data was not loading properly causing errors in sorting and the Diversification Chart.
- Rounding problem on Diversification report corrected so figures sum exactly as seen on diversification list.
- Resolved issue where saving portfolio data with apostrophe (‘) in any fields causes error.
- Portfolio sort order updates accordingly when changes to the data are detected. (Previously the sort would reset in some cases incorrectly.)
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