

FIN-511 Financial Analysis Chapter 5

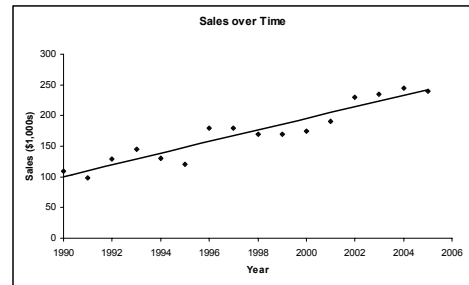
- Major Topics:
- Financial Forecasting:
 - Pro forma financial statements
 - Use percent of sales method
- Trend function
- Regression analysis

Pro forma Financial Statements

- Start with a forecast of next year's sales
- Assume most balance sheet and income statement accounts vary directly with sales.
 - **Those that don't must be estimated separately**
- To estimate pro forma statements
 - **Take each item as a percentage of sales (for the current year) and multiply by the new level of sales - if the item varies directly with sales**
 - **Otherwise, estimate a new level for the item (accumulated depreciation) or assume it is unchanged (plant & equipment)**

Finishing the statements

- When you are done, does the balance sheet balance?
- Add the item, *Discretionary Financing Needed* to compensate and balance
- Use IF statement to inform us of a deficit or surplus
 - $=IF (B26>0, "Deficit", "Surplus")$
- Many times this is done with an iterative loop, estimate the deficit or surplus, include this amount as borrowed or invested, include interest payments, until it balances



Other Forecasting Methods

- Linear trend extrapolation
 - Find the "best-fit" straight line through the data points using regression
 - Use the regression values to predict the future value of variable using the *TREND* function
- Trend(Known_Y's, Known_X's, New_X's, Const)
- Regression Analysis Tool will make the same prediction AND provide all of statistical information
- Select: *Tools, Data Analysis, Regression* and follow dialog boxes to run the regression
- Can use output data to predict future time periods and plot the regression line

Regression Analysis Tool

Selected inputs from Regression dialog box

- Input Y Range
- Input X Range
- Constant is Zero
- Output Range
- New Worksheet Ply
- New Workbook

TREND

Returns values along a linear trend. Fits a straight line (using the method of least squares) to the arrays **known_y's** and **known_x's**. Returns the y-values along that line for the array of **new_x's** that you specify.

Syntax

TREND(known_y's,known_x's,new_x's,const)

Known_y's is the set of y-values you already know in the relationship $y = mx + b$.

Known_x's is an optional set of x-values that you may already know in the relationship $y = mx + b$.

New_x's are new x-values for which you want **TREND** to return corresponding y-values.

Const is a logical value specifying whether to force the constant b to equal 0.

If **const** is **TRUE** or omitted, b is calculated normally.

If **const** is **FALSE**, b is set equal to 0 (zero), and the m-values are adjusted so that $y = mx$.

Example

TREND(B2:B13,A2:A13,A14) place formula in cell B14 to find predicted value.

• Assignment:

- Do all of the work in the chapter, final result should look like Exhibits 5-2,3,6,7,8 Use balance sheet & income statement from earlier chapter
- Format exactly like in the text.
- Remember Columns/Rows/Gridlines
- Each person will turn in one set of information: print out of spreadsheet and print out of cell formulas
- Work is individual.
- Due at the beginning of class