

Example of output from Data Analysis procedure in [RegressIt](#)

Analysis specifications:

The screenshot displays the Microsoft Excel interface with the 'Data Analysis' toolpak ribbon selected. The 'Data Analysis' icon is highlighted with a red box. Below the ribbon, a data table is visible with columns for 'Week', 'PRICE 12PK', 'PRICE 18PK', 'PRICE 30PK', 'CASES 12PK', 'CASES 18PK', and 'CASES 30PK'. The 'Select Variables for Data Analysis' dialog box is open, showing the following configuration:

- Analysis name:** Data Analysis 1
- Variables to be analyzed:**
 - CASES_12PK (52)
 - CASES_18PK (52)
 - CASES_30PK (52)
 - PRICE_12PK (52)
 - PRICE_18PK (52)
 - PRICE_30PK (52)
 - Week (52)
- Additional output options:**
 - Time series statistics
 - Show series plots
 - Points
 - Lines
 - Both
 - Bars
 - Show scatter plots
 - For first variable only
 - on X axis
 - on Y axis
 - Show simple regression lines
 - with r-squared
 - with slope
 - Show mean values
- Buttons:** Run Analysis, Variable Transformations, Cancel, Select All Variables, Un-Select All Variables, Editable graphs (checked).

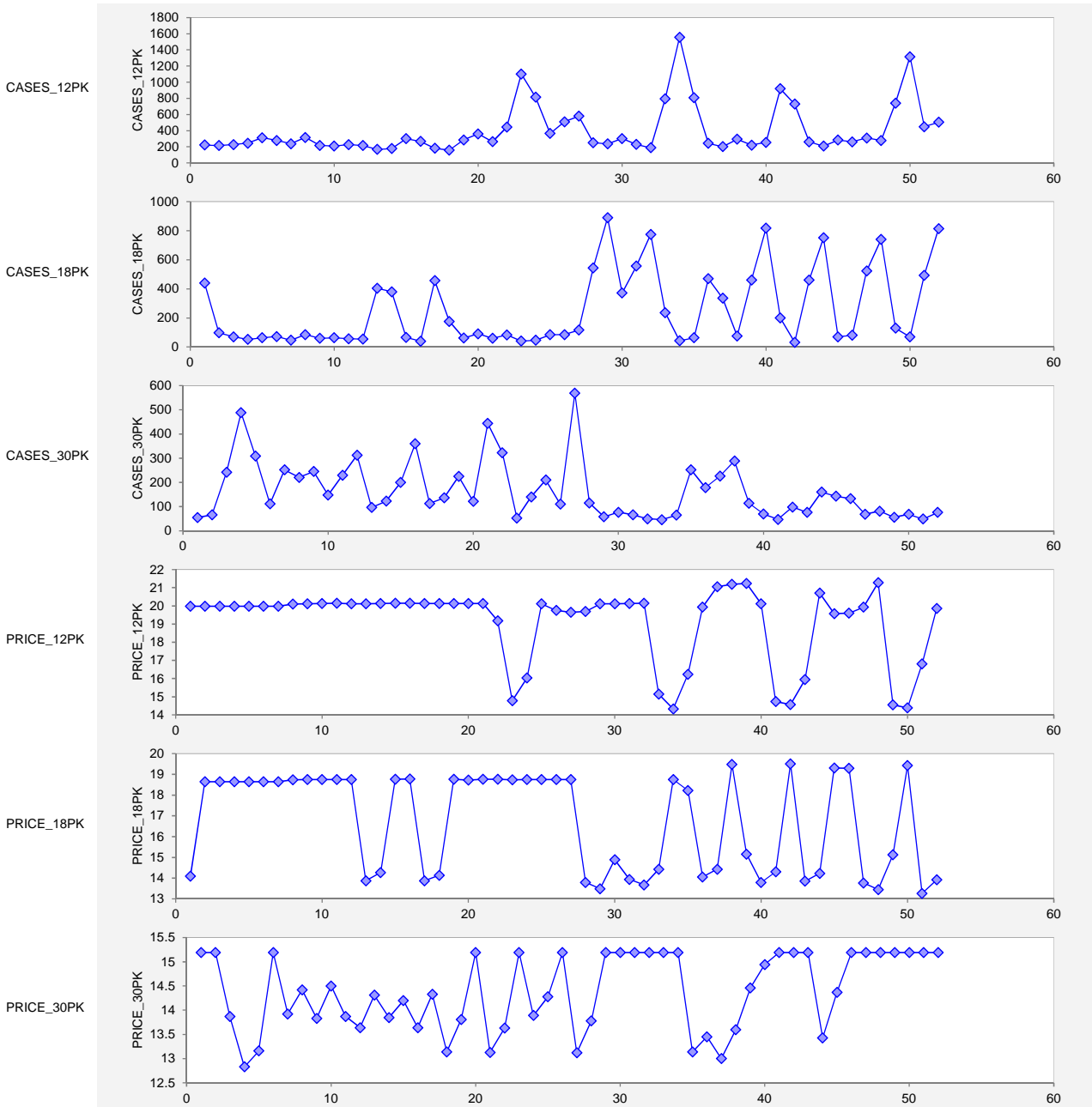
The data analysis output worksheet provides a table of the usual summary statistics, as well as an optional autocorrelation table (if the time series statistics box is checked) and optional series plots. There is an option (not used here) to specify the variable to list first in the table and chart arrays (e.g., the dependent variable to be used in regression models). All tables and charts are formatted to accommodate long (up to 30-character) variable names with full visibility. See the next page for the correlation matrix and optional scatterplot matrix.

Descriptive Statistics

March 31, 2015 10:58 AM RegressIt 2.2 Beer Sales Example Data Analysis 1

Variable	# Cases	Mean	Median	Std.Dev.	Std.Err.Mean	Minimum	Maximum	Skewness	Kurtosis
CASES_12PK	52	399.163	272.500	302.555	41.957	159.000	1,557	2.157	4.601
CASES_18PK	52	256.673	88.000	258.825	35.893	32.000	890.000	1.057	-0.160
CASES_30PK	52	165.043	122.750	119.625	16.589	46.500	568.250	1.458	2.095
PRICE_12PK	52	19.088	19.980	2.088	0.290	14.330	21.280	-1.441	0.500
PRICE_18PK	52	16.725	18.650	2.411	0.334	13.260	19.500	-0.266	-1.901
PRICE_30PK	52	14.379	14.395	0.806	0.112	12.830	15.190	-0.334	-1.388

Variable	1st Auto	2nd Auto	3rd Auto	4th Auto	5th Auto	6th Auto	7th Auto	8th Auto	9th Auto	10th Auto	11th Auto	12th Auto
CASES_12PK	0.478	-0.035	-0.071	-0.087	-0.200	-0.108	0.221	0.297	0.093	0.047	0.142	-0.039
CASES_18PK	0.340	-0.160	0.225	0.475	-0.047	-0.322	0.086	0.341	-0.063	-0.175	0.222	0.323
CASES_30PK	0.237	-0.015	0.040	-0.028	0.120	0.140	-0.023	0.124	0.065	0.033	0.203	0.048
PRICE_12PK	0.544	-0.007	-0.282	-0.254	-0.271	-0.056	0.264	0.474	0.326	0.167	0.005	-0.089
PRICE_18PK	0.306	-0.141	0.173	0.430	-0.035	-0.290	0.005	0.159	-0.209	-0.122	0.193	0.217
PRICE_30PK	0.341	0.069	0.109	-0.089	-0.105	0.028	0.069	0.080	0.235	0.089	-0.017	-0.127



In the correlation matrix, column headings are staggered down the diagonal to allow long variable names, and font shading is used to highlight especially large or small correlations (light gray for less than 0.1 in magnitude, boldface for larger than 0.5 in magnitude). The optional scatterplots may include regression lines and/or center-of-mass points. When both are included, as shown below, they illustrate that the regression line always passes through the center of mass of the data. The chart title includes the correlation and either its squared value or the slope of the regression line. (Only the upper 3x3 portion of the scatterplot matrix, in which cases-sold is on the Y axis and price is on the X axis, is shown here.) Axes on scatterplots are scaled so that their limits are the minimum and maximum values of the variables in order to fully use the space and also provide additional summary statistics for the viewer. Point sizes on scatterplots (and all other plots) are adjusted between 4 and 8 points to fit the sample size.

Correlation Matrix (n=52)

Variable	CASES_12PK	CASES_18PK	CASES_30PK	PRICE_12PK	PRICE_18PK	PRICE_30PK
CASES_12PK	1.000					
CASES_18PK	-0.295	1.000				
CASES_30PK	-0.210	-0.458	1.000			
PRICE_12PK	-0.859	0.255	0.329	1.000		
PRICE_18PK	0.241	-0.866	0.521	-0.084	1.000	
PRICE_30PK	0.300	0.294	-0.807	-0.364	-0.251	1.000

