

RELATIVE STANDARD DEVIATION PLOT

PURPOSE

Generates a subsample relative standard deviation versus subsample index plot.

DESCRIPTION

The relative standard deviation is the standard deviation divided by the absolute value of the mean times 100. The subsample relative standard deviation is the relative standard deviation of the data in the subsample. The relative standard deviation plot is used to answer the question: "Does the subsample spread change over different subsamples?" It consists of:

Vertical axis = subsample relative standard deviation;
Horizontal axis = subsample index.

In addition, a horizontal line is drawn representing the full sample relative standard deviation. The appearance of the 2 traces is controlled by the first 2 settings of the LINES, CHARACTERS, SPIKES, BARS, and similar attributes.

SYNTAX

RELATIVE STANDARD DEVIATION PLOT <y> <x> <SUBSET/EXCEPT/FOR qualification>

where <y> is the response (= dependent) variable;

<x> is the subsample identifier variable (this variable appears on the horizontal axis);

and where the <SUBSET/EXCEPT/FOR qualification> is optional.

EXAMPLES

RELATIVE STANDARD DEVIATION PLOT Y X

RELATIVE STANDARD DEVIATION PLOT Y TAG SUBSET TAG > 2

DEFAULT

None

SYNONYMS

RELSD PLOT, RELATIVE SD PLOT, RELS PLOT, RS PLOT, and RSD PLOT are synonyms for RELATIVE STANDARD DEVIATION PLOT.

RELATED COMMANDS

RELATIVE STAND DEVIATION	=	Compute the relative standard deviation of a variable.
RELATIVE VARIANCE PLOT	=	Generate a relative variance plot.
CHARACTERS	=	Sets the type for plot characters.
LINES	=	Sets the type for plot lines.
MEAN PLOT	=	Generates a mean plot.
SD PLOT	=	Generates a standard deviation plot.
BOX PLOT	=	Generates a box plot.
XBAR CHART	=	Generates a mean control chart.
PLOT	=	Generates a data or function plot.

APPLICATIONS

Exploratory Data Analysis

IMPLEMENTATION DATE

88/2

PROGRAM

```
SKIP 25  
READ GEAR.DAT DIAMETER BATCH  
LINE BLANK DASH  
CHARACTER X BLANK  
XTIC OFFSET 0.2 0.2  
Y1LABEL RELATIVE STANDARD DEVIATION  
X1LABEL SAMPLE BATCH  
TITLE AUTOMATIC  
RELSD PLOT DIAMETER BATCH
```

