

Presenting Mixed Data Series on One Scale

Source: <http://sci.tech-archive.net/Archive/sci.stat.edu/2004-07/0040.html>

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Date: 07/14/04

Date: Wed, 14 Jul 2004 12:37:21 GMT

A group of folks interested in understanding economic business cycles for purpose of investing are trying to find a way to graphically present mixed data on one chart. If multiple scales ("Y" axis) are used, the graph becomes messy... too busy.

Patterns are more important to the group than concrete values. They're lookin' for trends and relationships.

There's common agreement that the data should be "normalized" (don't even know if that's a legitimate term in this case) by taking the highest number of the series that has the highest value and divide it into the highest value of the series that has the lowest values in order to establish a proportion. Then, using that proportion, divide it into every date point in the series having the highest values. When done, move to the next highest series and repeat the process.

An alternative but very similar method proposed was to ignore the high values and simply establish ratios for the same year across all series then divide the respective results into each of the data points within their respective series. You end up with a different set of numbers but surprisingly (to me) you end up with the same relationship or proportion each number has within a series to its neighbors. Thus, the same "pattern" is projected and all will fit on the same scale.

Comments please? Anyone have research background who has dealt with this before? We may be reinventing a wheel here and going to a lot of trouble for nothing.