

## Question 1.



Figuur 1: <http://www.bloomberg.com/markets/european-debt-crisis/>

The graphic presents a quick glance at the percentage change in stock indexes related to several European countries. Even though of its simplicity it gives a decent visualization for comparing the percentage change between several countries (mainly because it can be set to ascending or descending order).

- 1) The graphic presents several variables:
  - a. The percentage change in stock indexes
  - b. The last stock position
  - c. Several countries in Europe
- 2) The graphic allows comparison between the stock indexes and the percentage change (which can be ascending or descending). Although further information about a country can be found through the sidebar on the left, its simplicity still makes it hard to compare other information with the change in stock indexes.

- 3) The graphic doesn't organize countries in anyway.
- 4) The graphic's simplicity also lacks the ability to find correlations. For instance, you can't see if the percentage change in stock indexes is correlated to the change in GDP or Debt.

## **Question 2.**

Bertin's chosen visual variables are: color and value.

A quickly observed attribute of the graph is that it makes use of colors for showing a rise or fall in percentage change and value for showing a higher rise or fall. The numerical table on the right shows a red number for a negative change and a green number for a positive change. The geographical table in the middle follows the principle of the numerical table, with the addition of value by showing a darker red or darker green for a higher fall or rise in percentage. It also shows a grey color for countries of which there is no data or no change.

## **Question 3.**

I agree that visualization is functional art. For instance, a spreadsheet with hundreds of rows and columns is a visualization of data, but is it a good one? The spreadsheet lacks the ability to visualize the connections between the data, or in other words: it doesn't tell a story. The story telling is one of the most important aspects of a visualization: it must highlight the desired connections between the data so that people whom look at it immediately understand what's going on, just like looking at a good painting.