

**Homework I**  
**41000 - Business Statistics**  
**Spring 2013**

**Due dates: 04/15(41000-81) - 04/16(41000-82)**

Turn in your homework at the beginning of the class. Your homework solution should be well organized. Include graphs that you are asked to view in the problems. You are not limited or restricted to use the statistical packages used/presented by the instructor. You may discuss the problems with your colleagues but in the end you MUST write up your homework individually.

**PROBLEM I.**

The file **volume.txt** (see the course webpage) contains daily volume of trades.

a) Compute the following 7 summary statistics for the volume data: mean, median, standard deviation, skewness, excess kurtosis and 1<sup>st</sup> and 3<sup>rd</sup> quartiles.

b) Repeat a) for two subsets of the data: the first 100 observations and the last 320 observations. Do the means change? How about the other summary statistics computed in a)? Comment your findings.

c) Draw two boxplots: one for the first 100 observations and the other for the last 320 observations. Comment your findings.

**PROBLEM II.**

The file **nasdaq-djia.txt** (see the course webpage) contains daily returns for the NASDAQ and DJIA indices for the years of 2000 to 2008 (9 whole years). Similarly to Question I, compare the behavior of the returns per year for both indices. Comment your findings.