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LONGITUDINAL DATA SET
In the GREEK EQUITY MARKET

Based on a data set of the Composite Index and the Transaction Volumes of the ATHENS STOCK EXCHANGE

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Variable 1 - Summary

Since the median (883.21) is lower than the average value (934.88), there are more values below the mean than those that are above. Specifically there are 115 values that are below the mean and 87 values that are above. However the difference between these two numbers (115 and 87) is not a significant one. Thus **the mean is meaningful and shows a representative average level of the daily closes of the Composite Index during the examined period.**

Frequency Distribution: The fact that the standard deviation (103.11) approaches the distance (128.21) between the mean (934.88) and the floor (806.67) of the data, indicates that we are dealing with a **skewed distribution.** Furthermore the distribution of the variable is skewed toward the low end of the scale.

The Composite Index has fluctuated in the range 800 – 1,000 points for the great majority (144 sessions) of the 202 sessions that took place in the 10-month period of January - October 1994. For the last five months the fluctuation range remained persistently at the 800 - 900 point level.

At the 1,000-1,200 point level, a small number of daily closes are observed (48 out of 202), giving one explanation for why the distribution is skewed toward the low end of the scale. The Composite Index fluctuated at this range during the period January - March 1994. The Index reached its **maximum value** (1,194.58 points) on January, 18th. That came as a result of expectations about an overestimated positive outlook in the Greek economy. Those expectations led the Composite Index to its highest value. However during the following months, the Index

unavoidably moved to lower levels, as the overestimated expectations exhausted.

The **minimum value** of this variable is 806.67 points and occurred on May, 25th. By that time the domestic market was anticipating a significant depreciation of the domestic currency as a result of its entrance into the European Monetary System. That caused a violent decrease of the Index for almost 180 points in 16 sessions (from 987.14 points on May, 3rd, to 806.67 points).

Concerning the examined variable, we are not able to break out considerably distinctive time periods and make any relevant conclusions about these periods.

Variable 2 - Summary

There are 138 values that are below the mean (5,157.45) and 64 values that are above. That can also derive from the fact that the median (4,148.08) is lower than the average value (5,157.45), indicating that there are more values below the mean than those that are above. In this case, the mean of the variable 2 is less useful and meaningful than the mean of variable 1, earlier analyzed.

Frequency Distribution: Since the standard deviation (3,384.25) exceeds the distance (3,290.45) between the mean (5,157.45) and the floor (1,867) of the data, it becomes obvious that we are dealing with skewed distribution. Furthermore the distribution of the variable ‘‘Daily Transaction Volumes’’ is skewed towards the low end of the scale. **We can also see that while we move to sets (ranges) of higher transaction volumes, the number of the values observed in each set decreases** (look at the mean points and distribution).

The variable has fluctuated at the range of 0 - 6,000 drachma mil. for the great majority of the 202 sessions (157 out of 202 sessions or 78% of the total sessions). For the rest 45 sessions, 33 values are observed at the range 6,000 - 12,000 drachma mil., while only 12 values are observed at the higher range of 12,000 - 21,000 drachma mil.. The **maximum transaction volume** of 20,457 drachma mil. occurred in the session of January, 18th (at the same session the Composite Index reached its highest level of 1,194.58 points).

At the 12,000 - 21,000 range, the small number of observed values must be attributed to the exaggerated appreciation of the Greek Stock Market, which as mentioned earlier took place in the beginning of the examined period (January - February 1994). Along with the decline of the Composite Index after those two months, the transaction volumes moved also to lower levels.

Concerning the examined variable, we are not able to break out considerably distinctive time periods and make any relevant conclusions about these periods.

General Conclusions

1. The average values the Composite Index and the transaction Volume of the

Greek Stock Market during the period January - October 1994, are 934.88 points and 5,157.45 drachma mil. respectively. In general terms, **both average values are meaningful** and useful, given our dataset. However, comparing the two means, the mean of the Composite Index should be regarded as more meaningful.

2. We can easily observe that high levels of the Composite Index go with high transaction volumes and vice versa. In a Stock Market this is one of the most frequently observed functions. When investors feel optimistic they buy more stocks, leading to more transactions and to higher levels of the stock market index. By contrast, when investors feel pessimistic they sell stocks and drive the index to lower levels with lower transaction volumes.

3. Both distributions are **skewed toward the low end of the scale,** with the distribution of the variable ''Daily Transaction Volumes'' to show more skewed than the distribution of the variable ''Daily Closes of the Composite Index''.

4. Both variables have more values below their means. Concerning the Variable 1, there are 115 values below the mean, while for the Variable 2, there are 138 values below the mean.

	Values above mean	Values below mean	Total values
Variable 1	87	115	202
Variable 2	64	138	202

5. Both variables don't allow us to break out significantly distinctive time periods and build conclusions upon these periods. We cannot perceive any cyclical or seasonal variations, while there is some specific variation in terms of specific and non repeated events / factors that led the two variables into upward or downward trends. **Additionally to the significant increase of the Index that occurred in January 1994 (as was analyzed earlier), we could also mention its sudden and violent decrease of mid-May. As we noted earlier, that event resulted from the investors' fears of an imminent depreciation of the domestic currency.**

6. However, concerning the Variable ''Daily Closes of the Composite Index'', we could generally distinguish two broader time periods. The first period begins in January and ends in late May. During this period the Index fluctuates at the widest range (800 - 1,200 points) observed in our dataset, since in mid-January the Index reaches its maximum value and in late-May moves down to its lowest value. During the second time period, June - October 1994, the Index fluctuates at the narrow range of 800 - 900 points.

Conclusively, the statistics derived from our dataset are quite meaningful and leave considerable space for conclusions upon each of the two variables and their potential relationship.