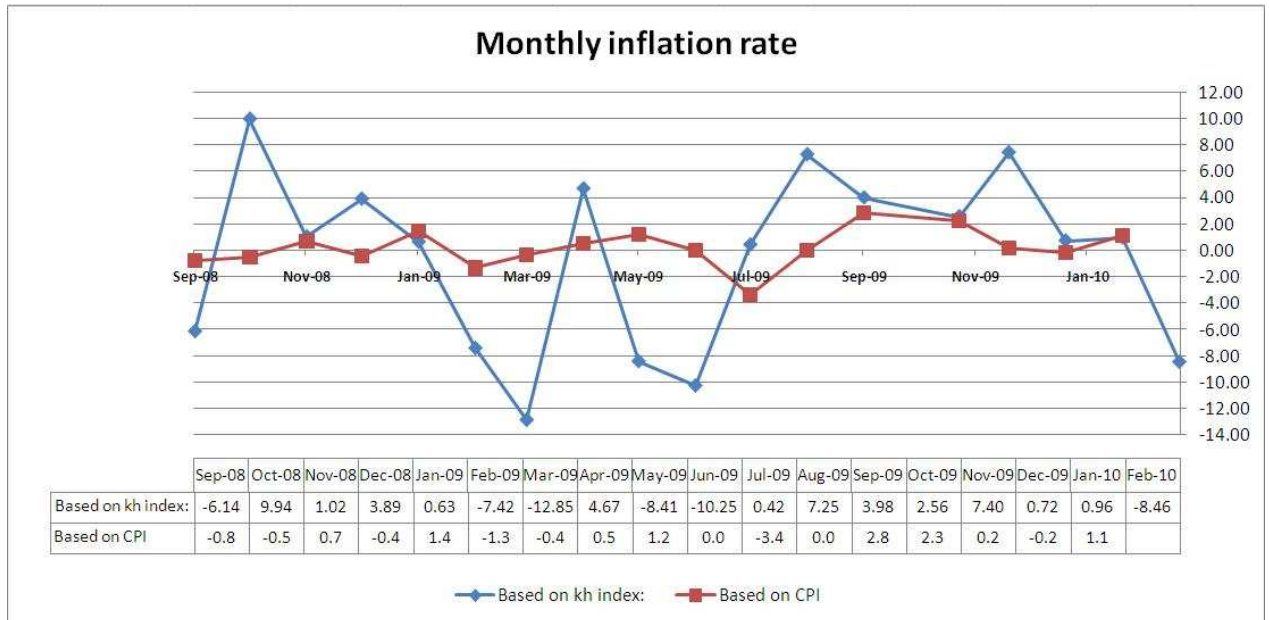


ISET'S KH-INDEX. January 2010

Based on *kh* index, monthly inflation was expected to fall in December, 2009. One month later official statistics showed the same trend. In January 2010, we observed increase in monthly inflation, and again after one month CPI for January was published and affirmed that our expectation was exact, monthly inflation went up from -0.2 to 1.1 %.



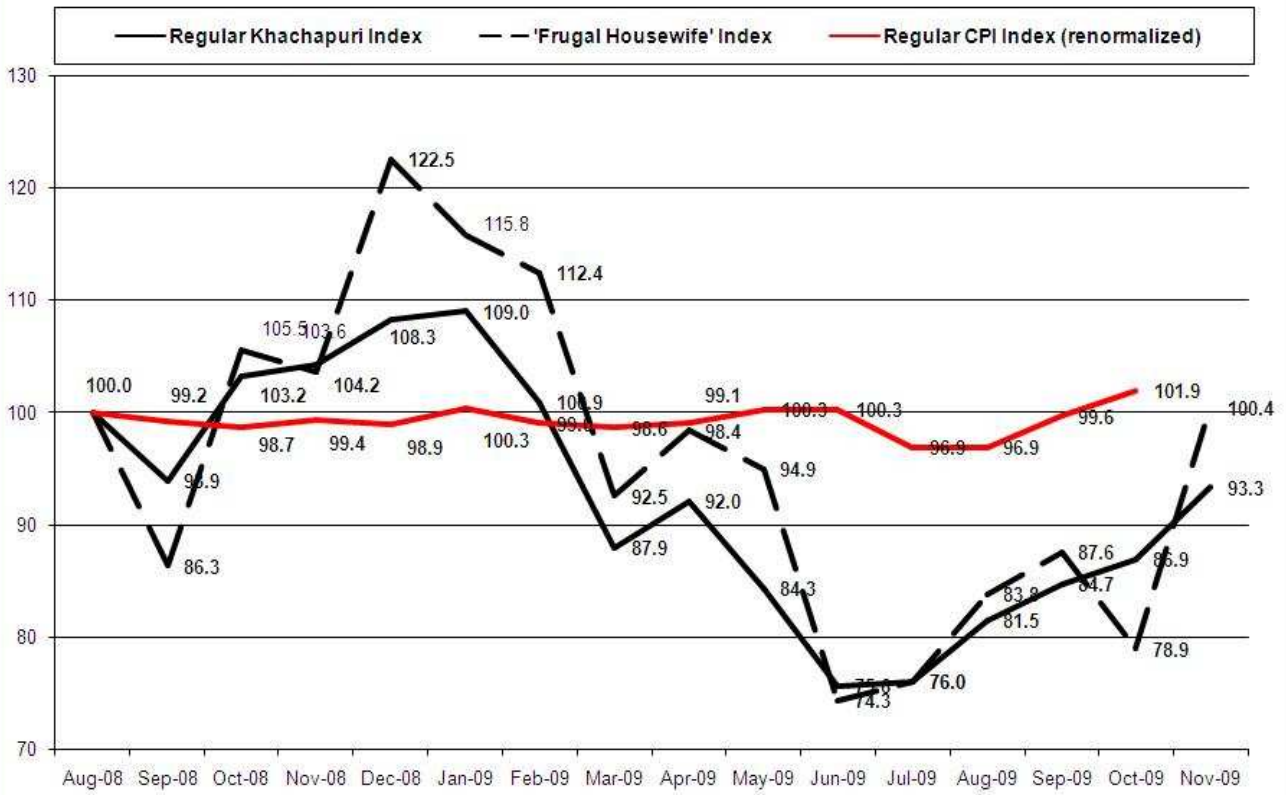
ISET'S KH-INDEX. November 2009

The chart below illustrates dynamics of two indices since August 2008. We also compare it with the regular CPI measure of inflation, published by Statistics Georgia and reproduced at the NBG website.

The comparison is valid only through October 2009, as the November data for the CPI is not yet known. Note that the *khachapuri* index is not seasonally adjusted (i.e. the fluctuations caused by seasonal factors are not excluded, something that will become possible only after enough observations are available), while the CPI index is. Also note that the CPI has a much broader base, and hence, changes to particular components have less of an impact on the overall values. Both these factors explain extra volatility in the *Khachapuri* index compared to the CPI.

- The overall changes for the *khachapuri* and CPI indices are similar. In April 2009 the *khachapuri* index demonstrates increase in prices. The same trend follows CPI index, but for the next two month CPI remains unchanged while *kh* index shows deflation. With one month delay CPI follows the *kh* index and in July we have significant deflation. Starting from July 2009, *kh* index increases and again after one month, from august CPI follows the same trend.
 - Correlation coefficient between this two indices increases from 0.18 to 0.26 when we use lag of Kh index ($\text{corr}(Kh_{t-1}, CPI_t)$) instead of using actual corresponding values, this means that *Kh* index is a good tool to predict the trend of the CPI for the next month, whether it will increase or decrease. One can argue that the data is not enough but anyway we can test the significance of the *kh* index from regressing CPI on lag of *kh* or on *kh* directly, in both cases coefficient of the *kh* index is significant.
 - From the recent data (graph below) we see that regular *khachapuri* index increases from July 2009 including November 2009, same is true for CPI, using the *khachapuri* index we just can conclude that regular CPI index will most probably increase slightly or remain the same in November and December of 2009. To use our regression equation we need to consider seasonality otherwise confidence interval would be too large and useless for interpretation. Seasonality can be dealt with by adding a set of seasonal dummies and this can be done after we collect enough data. Some may doubt the explanatory strength of this index, but do not forget, this is the most robust consumer basket which undoubtedly has some logical inflation measurement power.
- From March 2009 the “*frugal*” index was lower compared to the starting point, with prices of expensive products decreasing faster. But in November the “*frugal*” index goes back to its initial value. October was the most dramatic month when standard deviations of prices have increased from 0.57 to 0.87 for cheese; from 0.14 to 0.44 for flour and from 0.20 to 0.49 for milk. This means that deflationary processes which we see for summer and autumn months have been more useful for those who go for cheaper products only in June and October.
- Both *Kh*-indices jump in April 2009 following the devaluation of Lari which continued up to June. Starting from June 2009, regular *khachapuri* index increases.
- From March 2009 *khachapuri* price keeps to be lower compared to the starting point

ISET's KHACHAPURI INDEX



ISSET'S KH-INDEX. March 2009

The chart below illustrates dynamics of two indices since August 2008. We also compare it with the regular CPI measure of inflation, published by Statistics Georgia and reproduced at the NBG website.

The comparison is valid only through March, as the April data for the CPI is not yet known. Note that the *Khachapuri* index is not seasonally adjusted (i.e. the fluctuations caused by seasonal factors are not excluded, something that will become possible only after enough observations are available), while the CPI index is. Also note that the CPI index has a much broader base and, hence, changes to particular components have less of an impact on the overall values. Both these factors explain extra volatility in the *Khachapuri* index compared to the CPI.

- The overall changes for the *Khachapuri* and CPI indices between August and March are similar. However, the CPI index demonstrates deflation throughout the period with January being the only exception, where prices have slightly increased compared to August, while the *Khachapuri* index, when compared to its August value, shows deflation occurring only in September.
- The “*frugal*” index has increased by 12 percent over the six months, which means that the range of prices has been shrinking, with prices for cheaper products growing faster. Indeed, by March the standard deviations of prices have declined from 0.57 to 0.35 for cheese, from 0.41 to 0.25 for butter; from 0.03 to 0.01 for eggs. This means that inflationary processes have been much more painful for those who go for cheaper products, i.e. for the poorer ones.
- However, March data for the *Khachapuri* indices point out a significant deflation as prices for all the ingredients have decreased, with price of cheese falling by as much as 23 percent compared to February.
- Both *Kh*-indices jump in December following the November devaluation of Lari.

